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MIND IN THE PARMENIDES

A STUDY IN THE HISTORY OF LOGIC

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By

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". . . . . quamquam ridentem dicere verum
Quid vetat? . . . . . ."
Horace, Sat. I. 1. 24.

ERRATA

p.30,l.2: for *physical* read *psychical.*

p.35,l.17: read *have.*

p.36,l.37: read *Burnet.*

p.51,l.25: include from "Socrates asks . . ." under (3).

p.52,l.40: read (*ἐν τῇ διανοίᾳ λαβὼν*).

p.70,l.30: read (*νόημα*).

p.102,l.12: for *at* read *et.*

p.104,l.5: insert, 31. Paul Shorey, The Unity of Plato's Thought, p. 57, University of Chicago, Decennial Publications, VI, 1904.

32. ibid. pp.27-30.

p.104,l.6: for *monologue* read *dialogue.*

p.105,l.31: for *p.173sq.* read *p.80.*

p.110,l.25: for *infra* read *supra.*

p.114,l.45: read *Analytics.*

—*Publisher.*

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On the nature of criticism: the meaning of a document is realised in the history of its interpretation. The divergent views of the PARMENIDES are partly explained by its logical import: hence, its sublimity for Neo-Platonism; and its assimilation to modern epistemology, whereby the problem of an *Ideenlehre* becomes the centre of controversy. Schleiermacher first construed the dialogue in terms of logical theory; although Tenneman had previously discounted the theological version. According to Zeller, it establishes an "immanence" doctrine of Ideas. Its authenticity is doubted by others. Grote and Jowett find Plato attacking his own doctrine of "transcendent" Ideas. For Apelt it is merely a humorous polemic rife with sophistries. Jackson regards it as the abandonment of an earlier doctrine in favor of the later development of Plato's philosophy. The dialogue is an argument for the Absolute, according to Taylor. (But Plato is innocent of the problems in the so-called Theory of Knowledge.) He intends to correct an erroneous view of Ideas as *things* instead of *laws* (Natorp). Plato jests about the inevitable contradications in his transcendentalism (Shorey). Plato has no *Ideenlehre*.

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INTRODVCTION

THE historical interpretation of a document, conceived as the literal recovery of its initial meaning, is an anomaly. For whatever significance it may possess belongs to it by virtue of a body of actual or potential information. It is the document for *present* possibilities and purpose that concerns us. Necessarily, then, the object of criticism is to determine, not what this piece of writing, now at hand, did mean once on a time, but what in truth it has come to mean here and now. Its real meaning has been formed fully as much by the history of its interpretation as by the continued record of its existence. A source of intellectual nourishment in successive periods, its meaning has been developed by their needs and fitted to their several interests, as passing clouds take shape from the winds and climate of the lands they water. On the other hand, tradition must conform, more or less, to the given character of its records. Often, indeed, the continual elaboration of the same material will result in an increasing discrepancy of opinion. Repeated criticism undermines the vantage-ground of one construction after another, until perhaps the extreme of historical skepticism is reached in the denial of a document's authenticity upon "internal evidence." Still, this accumulation of differences, with their emphasis of diverse aspects, helps to enlighten the common subject-matter in which they occur. And even were the record itself to be destroyed, it might be possible to discern its nature with considerable accuracy, merely from the manner in which its critics had disagreed. Thus, a certain literature shall impart to one age, with one set of interests, a religious faith and a system of theology; but to another, with different interests, it shall provide an escape into intellectual freedom. Thereby are its veritable meaning and possibilities brought to view. If, then, there are, in this sense, "two Platos, the one real and the other historical" (1), it is manifestly the former whom we can aspire to know, as he emerges from the cumulative judgments of the past.

The PARMENIDES has probably given rise to more disagreement among its commentators than any other dialogue of Plato. Literally, its interpretation

has gone from the sublime to the ridiculous: from the view that it is a discussion of an Infinite Being to the view that it is a piece of sophistical nonsense. Now if the conclusions of more recent studies of the dialogue be allowed and its contents regarded as appertaining strictly to logical theory, such extreme variation becomes quite intelligible. It is in the nature of the subject that its principles should be applicable to any field of inquiry, seeing that they belong to the very structure of discourse itself. Logic is like a pass-key which turns every lock, but opens none. Not infrequently it happens that what amounts to no more than a theory of proof has done duty for proof itself: where, as Mill puts it, we have been "merely keeping ourselves consistent in what is perhaps systematic error." (2) So with the PARMENIDES, if its dialectic of the One depends on the formal implications in the propositions themselves, it will lend itself readily in the service of this or that special doctrine of reality. The symmetrical affirmations and denials of the One in relation to the Others will do equally well for the proof (or disproof) of realism, nominalism, or conceptualism; of Kantian dualism, or absolute idealism. Which is to say, that they will suffice for none.

The PARMENIDES first appears in the history of thought with its meaning defined in terms of Neo-Platonic speculation. In quest of a suitable dialectic for their system of deities, the followers of Plotinus attributed to its involved arguments an exalted and recondite meaning. In this vein, the earliest commentaries were written, and Proclus found in the discussion of One, Being, and Other, the logical principles of emanation which he needed in order to explain the creation of matter out of universal spirit. The One, or subject of the several "hypotheses," is the total universe, (later, the *ens realissimum* of the Schools), comprised, so to speak, within a single definition: and whose descending grades of existence are the working out of its implications by a three-fold law of "persistence, procession, and return," (*μονή, πρόοδος, ἐπιστροφή*). (3) Thus, the unity of a definition in its differences acquires a mystical and ineffable import. And the "One" instead of being considered as definite and limiting, stands for the infinite, for what is above reasoning, and to be apprehended, if at all, in ecstacy.

This sublime view of the PARMENIDES has been almost entirely abandoned, at least in its directly theological aspect (4), and few commentators would now maintain that the dialogue is intended for a treatise on Divine Being. Modern interpretation has moved away from the supernal towards a more mundane rendering. A remark of Leibnitz' illustrates the transition. He is recommending the PARMENIDES, together with the TIMÆUS, as "a specimen of Plato's most profound philosophy," because the former contains his reasoning about One and Being, or God, while the latter is an explanation of the nature of bodies by means of motion and figure alone, quite in the manner of our modern philosophers. (5) However, when it is once realised that the dialogue bears primarily upon matter of logic, instead of theology or ontology, its interpretation is brought into line with certain technical considerations as

to the nature and possibility of knowledge, with which modern logicians have been so widely concerned. Conceptualism, or the various reactions against the conceptualist logic, begins to furnish a point of departure. But along with this preoccupation with the relation of subject and object in knowledge, the influence of the traditional view of the dialogue,—or perhaps it were better to say, the influence of the speculations that occasioned that view,—has persisted, serving to increase the perplexity of an interpretation already sufficiently complicated. In consequence, we have the curious portrayal of Plato defending (or attacking) an eleventh century doctrine of universals with the weapons of nineteenth century epistemology. For it is hardly an exaggeration to say that the extensive criticism of Plato during the last century, notwithstanding all its rich and penetrating researches, found its chief motivation in problems derived from the separation of thought from its objects. Starting from the assumption that Plato was operating with the notion of "consciousness," it is no wonder that a "doctrine of Ideas" has become an all-important factor in his philosophy. The truth of Natorp's statement, that an understanding of modern idealism, especially through a mastery of Kant, is indispensable for the comprehension of the *Ideenlehre* (6), will impress anyone moderately acquainted with Platonism during the nineteenth century. There is a significant irony in the remark,—the more so for being unsuspected. If no one can comprehend Plato's doctrine of knowledge without the assistance of Kant, what shall we say of Plato himself and all his benighted followers prior to the Copernican revolution in philosophy? On this account, it is difficult to agree with Zeller when he says that "the doctrine of Ideas appears as a truly Greek creation." (7) For without the background of modern epistemology, it would be, as Natorp intimates, quite incomprehensible.

Examination of the principal commentaries written during the past hundred years shows that, while substantial agreement has been reached on many points, this has been due to the amassing of new information from historical and philological comparisons, and connected remotely, if at all, with the vexed question of Plato's *Ideenlehre*. On the other hand, the wide disagreement as to the meaning of the dialogue can be traced, almost without exception, to an attempt to fit the arguments into some theory, by which the relation of universals to subject and object in consciousness is to be explained. In the main, it will be found that these divergent interpretations of the PARMENIDES fall into three classes, each based on some view of the nature of the Forms in Plato's philosophy. According to those critics who favor an "immanence" doctrine, Plato is engaged here in demolishing the false separation of the order of consciousness from the order of things. The antinomies forestall Aristotle's criticism of a theory of knowledge which he wrongly attributed to his master, while the dialectic in the second part is an indirect vindication of idealism. The supporters of a "transcendence" doctrine of Ideas, on the contrary, find Plato, in a more or less humorous vein, discussing what are, perhaps, unanswerable objections to his own views; then exposing the inconsistencies of his critics'

argument in a dialectical travesty. According to this interpretation, Plato had "reified" or "hypostatised" the mental concepts of the Socratic definition, and found himself in a difficult, even untenable, position. Finally, a compromise is offered by those who hold to a theory of development in Plato's philosophy: in his early teaching, he had accepted the methodological status of the Forms, conceiving them as the subjective products of comparison and definition; later he came to assign them an ontological status in an objective and transcendent realm of being; and since the PARMENIDES belongs to the period of transition, we encounter objections in it to both views, with apparently contradictory beliefs about the Forms.

"You will find half of my logic in the PARMENIDES," said Hegel. And there's the rub, for before one can get at it, he must reckon with the other and more controversial half. Critics differ the more widely for having agreed as to the logical character of the dialogue, because of the disputes in which logical theory abounds. Schleiermacher seems to have been the first to point out definitely that the importance of the dialogue lies in the logical form, rather than the conclusions, of its arguments. He considered it a youthful composition in which Plato undertakes to elaborate the dialectical method of inquiry already suggested in the PHAEDRUS and PROTAGORAS. Its aim is to contrast true knowledge with the pretended science of the Sophist, by showing how the former results from the development of hypotheses through pure dialectic. It is thus a treatise on scientific or logical method, without ulterior purpose. Schleiermacher's suggestive and influential interpretation is open to criticism mainly on the grounds of chronology. By general consent, the PARMENIDES is now assigned to a later, probably the Academic, period of Plato's career. (8) Furthermore, as Zeller says, Schleiermacher leaves the meaning of the dialogue too disjointed, since his interpretation of the dialectic in the second part fails to account consistently for the *aporiae* in the earlier passages. "No explanation of the PARMENIDES can be satisfactory," remarks Jowett, "which does not indicate the connexion of the first and second parts." (9) Not all critics agree, however, that any such coherence is demanded. For instance, Tenneman took the dialogue to be a bit of polemic, written more in jest than in earnest; an attempt to reduce the Eleatic philosophy to absurdity, by witness of its founder. In his view Parmenides must figure as one of those "who are always carrying about with them an adversary, like the wonderful ventriloquist, Euryches, who out of their own bellies audibly contradicts them." (10) But no hint of any such intention and denouement is given in the dialogue itself. If Parmenides involves himself in contradiction, not the slightest attempt is made by Socrates to press the advantage. And Plato refers elsewhere to the same meeting with apparently unfeigned respect for the "venerable and awful" Parmenides. (11)

Zeller threw light on much of the obscurity in the dialogue when he placed it, in order of composition, immediately after the THEAETETUS and SOPHIST, making its arguments a continuation of these. (12) He considered that what

the latter had broached, the one from the psychological, the other from the logical standpoint,—viz. the possibility of false notions,—the PARMENIDES submits to a more searching metaphysical analysis. The purpose of the dialectic in Part II is, according to Zeller, an indirect proof that non-being, i.e., the object of a false notion, is conceivable only through some relation to the Idea; while the *aporiae* in the earlier part prepare the way for this conclusion by revealing the correct view of the Idea's nature: as being inseparable from the manifold of appearance, of which alone it is the reality and actual unity. (13) The difficult saying at the end, that "whether one is or is not, one and the others in relation to themselves and one another, all of them in every way, are and are not, appear to be and appear not to be," is but an expression of the view that the Idea constitutes and unifies experience. In other words, if the Idea is not, non-being is.

It is not easy, however, to reconcile this "correct view of the Idea" with such passages as the PHAEDRUS myth, the cosmogony of the TIMAEUS, and many others that seem to imply its wholly "objective" status. And if Plato often regarded the Idea not "als der Einheit in dem Mannigfalten der Erscheinung," but as an "hypostatised essence," how is it possible to account for the formidable criticism of his doctrine by means of the difficulty of the "third man" and the like in the first part of the PARMENIDES? We should be forced to believe that Plato is intentionally undermining a most important feature of his own philosophy. For this reason, Ueberweg and others have even doubted the authenticity of the dialogue. It is a product of the Middle Academy, where after the Platonists had erected a fixed and supposedly rational system out of the poetic elements of Plato's doctrine of essence, "its inevitable replacement by Skepticism took place." (14) But this excision, while it makes the interpretation easier by largely dispensing with the need of any, cuts too deep. On similar grounds, the SOPHIST and with it the STATESMAN, should be rejected. Indeed, as someone has suggested, to be quite consistent, every passage where Plato advances objections to his own views must be questioned; in which case there would remain few dialogues that were indubitably genuine.

Both Grote and Jowett adopted the "transcendence" explanation of Plato's doctrine, at the same time accepting the *aporiae* as veritable objections brought against it by Plato. To Grote the whole discussion seemed sportive,—a humorous tribute to the force of an opponent's arguments. In Jowett's opinion it reveals Plato's metaphysical acumen, thus to be able to work out contradictions in his own philosophy. The objections raised by Parmenides are not answered because they are unanswerable in any philosophy which "separates the phenomenal from the real." In the "hypotheses" of the second part, Jowett finds "the same kind of criticism which Plato has extended to his own doctrine of Ideas" applied against the earlier Eleatic philosophy of the One. The impossibility of predicating anything of a unitary subject is demonstrated from the point of view of Zeno or the Megarians, by a series of complete contradictions. The similarity of this "imitation, or parody, of the Zenonian

dialectic" to the preceding criticism, Jowett does not exactly make clear; unless it is by his reference to a hint "that the paradoxes of Zeno admitted of a higher application (pp. 129, 153 E)" as "the thread by which Plato connects the two parts of the dialogue." (15)

A more pronounced interpretation in the same direction is given by Apelt (16), who like Tenneman, finds in the dialogue no more than a piece of youthful polemic: a rather heavy burlesque of Megarian subtleties, in the style of the EUTHYDEMUS. Plato plays havoc with their *Einheitsbegriff*, without taking pains either to discriminate the kind of unity thus ridiculed or to observe the discrepancies to which its absurd consequences lead in his own doctrine. Having cited the objections to the latter, he proceeds to answer them by a *tu quoque*. Thus, instead of a serious investigation into the nature of Being and Unity, we have in the "hypotheses" a veritable "storehouse of question begging and sophisms," whose humor depends largely on the play of the Greek idiom. Apelt makes much of the shifting significance of τὸ ἕν in the dialogue, —saying that it is employed now in the sense of the Kantian category, now in the sense of individuality, again as identity, or as numerical unity, and so forth. If, however, the One were but a logical symbol for the essence of any definition, it is true that it might denote equally well a Kantian category or the man in the moon. The ensuing contrarieties would beg no questions until this varied content were put into them.

A more constructive interpretation of the PARMENIDES resulted from the theory of a later development in Plato's thought. The dialogue is usually placed, with the THEAETETUS and SOPHIST, in a period of "reconstruction," its apparent inconsistencies being evidence of the earlier and later doctrines. A marked advantage in this point of view was that it permitted a consilience of the opposed claims as to the subsistence or immanent reality of the Forms, on the one hand, and their status as transcendent entities, on the other. For both types of doctrine, a respectable support can be adduced from the Platonic canon. But, for both, the PARMENIDES is more of less of a scandal. The theory of a development, however, professes to resolve the conflict by assigning the former doctrine of Ideas to Plato's youth, the latter to his maturity, with the PARMENIDES revealing the transition. This interpretation, as advanced by Dr. Jackson (17), is briefly as follows. Adopting in his youth the Socratic method of definition, Plato had conceived the Idea to be inherent in sensible existences, and discoverable by dialectic, as indicated in the sixth book of the REPUBLIC, in the PHAEDRUS, SYMPOSIUM, and many of the earlier dialogues. This was a doctrine of participation and Plato did not yet doubt the accessibility of the Forms to human intelligence. Convinced, however, by Zeno's arguments against the existence of the Many, he was led to abandon his earlier belief that true knowledge is to be found within the changing multiplicity of existence. The Ideas we seek belong rather to a separate, immutable, and eternal reality, in which the things of sense-experience have no part. Now Zeno had raised, for the first time, the problem of predication, which "brought

bout a crisis in the history of philosophy, . . . barred all progress in cience, . . . and left the agnostic, i.e. the sophists and Socratics, in pos- ession of the field." (18) Plato's task, therefore, was the formulation of an dequate account of predication,—in other words, a theory of Ideas. The entative expression of this "later theory" occurs in the PARMENIDES. Its rincipal features are (1) that one true Form (*αὐτὸ καθ' αὑτὸ εἶδος*) annot be predicated of another, (2) that a proposition, e.g. "this is a dog," neans that this particular existing thing belongs to a natural group (*ὄγκος*) aving the idea "dog," *αὐτὰ καθ' αὑτά*, for its type or pattern, which is not redicable of any particular, and (3) that a plurality either of groups or par- iculars implies relations between the members, these relations being the result f the mind's reflection, and appearing as *εἴδη*, but *not αὐτὰ καθ' αὑτά* (19). n the dialogue itself we find, first, a discussion of the necessary separation of he Ideas that are absolute from those that are merely relative; then, a com- arison of the two kinds to show that the former transcend human thought nd are inaccessible to us, while the latter lie within our experience. Jackson's ngenious arrangement of the "hypotheses" illustrates the distinction he had n mind: some of them result in absurd consequences for the One in relation o the Many, and these refer to an Idea as absolute; others have a logical ssue, since the argument is intended to demonstrate the connection between a elative Idea and the multiciplicity of particular existences. The SOPHIST ompletes this discussion by showing the interrelation of the latter kind and he possibility of predicating one (relative) Idea of another.

Here, surely, is a most convincing account of the occasion and purpose of the ARMENIDES and it seems strange that Jackson should have failed to follow ip the clue in the direction it so plainly suggests. The way to resolve the ifficulties of predication is to examine predication; and the way to find out vhether or not the connection of subject and attribute is as one supposed it o be, is to look at the connection in propositions. If the PARMENIDES was oc- asioned by the logical perplexities of sophists and Socratics, it is only to be xpected that Plato will seek their solution in the logical relations of discourse, nstead of raising a further problem of knowledge in general, around which uch perplexities revolved. The theory of an earlier and later phase in Plato's hought, as expounded by Jackson, gains some support from the subsequent rift toward skepticism in the Academy, as well as from the criticism of Aris- otle. Its chief disadvantage lies in a lack of corroboration in the dialogues. There are passages in the earlier writings which suggest a "realistic" view of he Forms just as there are passages among the later dialogues that point to n "idealistic" view, and vice versa. The interpretation of the PARMENIDES, s a discussion of a "two-fold truth," is therefore too insecure in theory and nvolves too wide a recension to be wholly convincing. (20)

Many critics reject this theory as a basis of interpretation, seeking instead ome explanation of the dialogue that shall be tolerably consistent with the nity of Plato's philosophy. "For the right understanding of Plato," says

Professor Taylor, "it is most important to realize from the first that the antithesis between a period of 'transcendent' and another of 'immanent' Ideas in his philosophy is a false one. If you mean by the transcendence of the Idea no more than that it is asserted to be other than the objects of sense, and differently apprehended, then transcendence is taught in the PHAEDO and REPUBLIC, and on precisely the same grounds in the TIMAEUS. And if you mean anything more, it is not taught anywhere in Plato." (21) Nevertheless, according to Professor Taylor, such an antithesis must still be presumed, as the product not of Plato's teaching, indeed, but of a school of thinkers whom he is attacking in the PARMENIDES. Looking for "the one leading conception by the help of which its puzzles may be reduced to simplicity," he finds this in the supposition that Plato is correcting that view of his doctrine which implied a sharp and absolute separation of unity from diversity, of Idea from sensible existences. The outcome of the antinomies in the first part proves the utter inconsistency of such a view, so "that we are thus driven to the conception of a unity by the aid of which we can hope to understand the world as a single rational whole." It is the Absolute, then, which under the caption of τὸ ἕν is the subject of the hypotheses of Part II. The problems that beset the conception of a unity in multiplicity are now examined in their proper locus: not in the relation of sensible particulars to an ideal One,—for such an inquiry would be futile in the light of what precedes,—but among the interrelations of the Ideas themselves. "For as soon as we realize what Plato is constantly trying to make us understand, that the 'ideal' world simply means the real world in so far as it becomes an object for knowledge, we should have no difficulty in seeing that the problem how one 'Idea' can be present to many 'things,' and the problem how one 'Idea' can while preserving its unity enter into relations with many other 'Ideas' are only two ways of raising the same question." (22) Or, as Professor Taylor expresses it elsewhere, for anything to participate in a system of reality is to "be what it means and mean what it is." (23)

Now with regard to the PARMENIDES, at least, this statement that the extension of a meaning is, in Plato's view, but one way in which the Ideas are severally related to one another, seems most fitting and quite beyond cavil. For it is made tolerably clear at the beginning of the dialogue that the discussion is to be "concerning the Ideas themselves" (129 C). But I feel sure that the importance of Professor Taylor's observation is due to certain exigencies of modern criticism and not to the nature of the problem with which Plato is here engaged. In other words, the remark seems to me quite true of Plato's conception of mind in the PARMENIDES; but it also seems irrelevant. The whole investigation being devoted, as Socrates intimates, to the possibility and manner of relating the Ideas to one another, it would be gratuitous for him to have then proceeded to resolve a distinction between Ideas and existences. Granting that the arguments of the Parmenides preclude any division of reality into two great orders of the psychical and the physical, it by no means follows

that it is the intention of the dialogue to reduce these separated spheres to unity. There is an alternative, at once less confusing and possessed of more historical probability. We need attribute to Plato nothing more imposing than that "naive pre-scientific view," where "there was not as yet any ground for a distinction between the psychical and the purely physical." (24) Thus, Plato's world of Ideas might still mean "the real world in so far as it becomes an object for knowledge," but it would carry quite a different set of implications. For, though they may be identical in outcome, there is virtually a vast amount of difference between the state of innocence and the state of regeneration.

With Zeller, then, Professor Taylor finds in the PARMENIDES a contrast between a false and a correct view of Plato's teaching. (25) The nature of the rejected view is revealed, he believes, in the repeated emphasis on the "separateness" of Ideas. Now this will perhaps put us on the way to the most likely interpretation, if we may be allowed to transfer this explanation from an epistemological to a logical context. The perplexities, which are attributed to the failure to recognize "the distinction between *perceptual* and *conceptual* extension," will appear to be due rather to an improper understanding of the relation between the logical intension and extension of a meaning. It is to some such result that Professor Taylor's brilliant analysis seems to lead. The further "metaphysical" problem of knowledge is both unnecessary and confusing.

Within the present century, the studies by Professors Natorp and Shorey are the outstanding contributions to the subject. With respect to the general intention which each attributes to Plato, their views are at the farthest poles asunder. But it is plain, once more, that their differences are due primarily to the dubious epistemology with which each supposes the PARMENIDES to be concerned. Natorp's account is somewhat akin to Taylor's in that he sees the introductory polemic yielding to a constructive discussion of the doctrine of Ideas. A perverse doctrine, which Aristotle erroneously fastens upon Plato, had supposed the Ideas were existences, while rightly considered "the Ideas mean laws (Gesetze), not things." (26) They are methods of scientific procedure by means of which the investigation of phenomena is directed and unified; mental platforms, so to speak, from which we are able to survey and coordinate eventual experience. To say that any phenomena "participate" in an Idea means that they exist, in thought if not in direct presentation, as "orderly developments of the mode of procedure which the Idea denotes." (27) Itself the law of a scientific inquiry, the Idea determines the scope and aim of the process, and is properly the unity of consciousness within the experience. (28) Now Plato's preoccupation with these scientific concepts or laws, which were for him only methodological, together with his figurative descriptions of them, gave rise to a complete misapprehension of his meaning. It was thought that he was concerned, not with "experience as science," but with putting Ideas in the place of things. He himself clearly recognized the hypothetical nature

of dialectic, as of pure logic and mathematics, considered apart from experience. But others present his doctrine in caricature, as a description of a real world composed entirely of faded existences, pale shadows of the given. In the PARMENIDES, it is the youthful Socrates who is made to expound this false view, which Plato, through the medium of Zeno and his master, proceeds to censure. This he accomplishes by first pointing out the inconsistencies in the false doctrine, and then propounding in a riddle, as it were, the true one. For the latter purpose, he borrows the method (but not the metaphysic) of the Eleatics. The "hypotheses" are intended to illustrate the preliminary logical discipline required of the young student before he can expect to grasp the full significance of Plato's teaching. He must first learn the method of dialectic before he can hope to understand the nature and use of these fundamental concepts of science with which Plato has been operating.

The mere fact that Professor Natorp has couched his interpretation in terms of modern philosophy constitutes no serious objection to it. For any explanation that is more than a virtual quotation must needs "modernize" Plato. The trouble lies rather in the inadequacy of this modern view to express a further, and perhaps a more fundamental, aspect of mind in Platonism. It is possible that Plato means by the εἴδη very nearly what Professor Natorp does by scientific laws or methods of inquiry. But is it not certain that he means a great deal more? If the Idea is frequently regarded as a correct method of investigation, it is precisely because its subject-matter does exhibit such uniformity as warrants that procedure,—because the method and content of science are all of a piece. When Plato speaks of an Idea as though it were "the only right point of view" from which to survey many things, there is no hint that this "rightness" might subsist in any other manner than the "presence" of that Idea in things. It is not that an Idea, *in addition* to being a method for science, is taken by Plato to be a "real presence" for esthetic and religious contemplation. (29) That Ideas are present to the rational soul, or the soul is in the presence of Ideas; that many things partake of one Form, or one Form is present to many things,—are these not but different ways of saying the same: that there is knowledge or Being? To illustrate,—the plan of the Roman Forum is presumably known to us. Possessed of this knowledge and equipped with this plan, we are able to follow at our pleasure the Sacra Via, turn with plebeian awe under the arch of Titus, or sit, like Gibbon, at close of evening, in the Temple of Jupiter, musing on the ruins of the Capitol. In one sense, then, we might consider this plan as a *Denkmittel* for this eventual experience; as a principle of investigation by which we anticipated and directed our explorations. But in a less sophisticated, and perhaps a more Platonic sense, the plan of the Roman Forum is that very arrangement of temples and arches which, under crumbling stones and foreign superscriptions, we do now discover. The plan, the εἶδος, of the Forum is, if you will, "a basis for investigation." But it is such just because it is in a certain existent matter, as something studied, described, painted, admired, read about,—in a

vord, as a subject of discovery and discourse. Natorp's suggestion that the Parmenides is concerned with the proper relations of Ideas in logical or cientific method provides a valuable insight into the meaning of that dialogue. But to maintain further that it is an argument intended to show that Ideas are *nly* methodological, are Laws but *not* things, is to introduce a distinction at nce doubtful and misleading. It is an exclusion that adds even more than t omits.

Finally, Professor Shorey, attributing an entirely different doctrine of Ideas o Plato, is led to interpret the dialogue along apparently opposite lines. He elieves that the Parmenides is neither the outcome of a "reconstruction" in Plato's thought, nor yet a criticism of what seemed to him a false doctrine. It alls into two distinct parts: first, a discussion, without serious intent, of cer- ain obvious objections to the Platonic theory of Ideas; second, a "logical xercitation," wherein Plato systematically exposes the inconsistencies involved n such conceptions as One-Many, Rest-Motion, and the like. But these con- radictory arguments in the second part are founded mainly on the abuse of he ambiguous copula, both in the affirmative and the negative. (30) They re not to be taken more seriously than the similar *aporiae* in the first part, xcept in so far as they suggest "by indirection precisely the logic of common- ense expounded in the Sophist." (31) With regard to the arguments in he second part, then, Professor Shorey agrees with the tendency from Schleier- nacher on, to view them as largely of a logical nature. Why on this ac- ount their importance should be disparaged is not clear. Is it perhaps that ve take too much for granted, forgetting that this "logic of commonsense" had nce to be formulated at considerable pains and that under the circumstances ts promulgation may have been a matter of urgency? If this is really implied n the "symmetrical antinomies" of Part II, it seems a sufficiently important actor to account for the whole undertaking, without recourse to anything urther. But Professor Shorey also has a theory of knowledge or doctrine of deas for Plato to expound. The Idea meant "(1) primarily a realistic way f speaking of the universal; (2) a poetic and mystical extension of this lan- guage by which the universal is treated not only as a *thing,* but as a thing of eauty and object of desire and aspiration; (3) in relation to metaphysics, it s the definite and positive assertion that the substantive essences, or rather he objective correlates, of general notions constitute the ultimate ontological nities of reality to which psychological and logical analysis refer us s the only escape from a Heraclitean or Protagorean philosophy of ure relativity." This "noumenon" of universals, Plato "found in the ypostasized concepts of the human mind. . . . He does not tell us what hey are, but that they are," and "that they are in some sense objective." Hence, the difficulties to which Plato refers in the first part of the Parmeni- es "are precisely those that confront any philosophy that assumes an absol- te," and which separates the sensible and ideal worlds. For "a concept of the nind, even apart from objective reference, either is or is not an entity of an-

other than the natural or sensuous order. If it is, we are driven back on Platonism." (32) It is scarcely necessary to point out the extent to which this assumes the modern distinction between a subjective and an objective order of existence, nor the influence of that assumption upon the subsequent interpretation of the PARMENIDES.

The chief source of the present disagreement among critics, clearly, is that each has accredited Plato with some theory of knowledge and has then proceeded to interpret the PARMENIDES in the light of this initial assumption. It appears that the various views have all depended upon some answer to the question, How does Plato reconcile the phenomenal world of sense-experience with the noumenal world of Ideas, considered as consciousness? And on this point there is not even a remote prospect of agreement. If the secret of the PARMENIDES lies in some "theory of Ideas," its interpretation has apparently come to an *impasse*. On the one hand, it is possible to infer from a judicious accumulation of references that Plato entertained an early form of *Identitaetsphilosophie*. Many of his arguments can be so construed as to mean that there is no object apart from a conscious subject, relative or absolute. In this view, the Platonic Idea anticipates the Hegelian *Begriff*,—a synthesis of differences within the unity of consciousness. Thus, by an incipient idealism does Plato bridge the gap between appearance and reality. Yet Hegel did not so much abolish the distinction between things and thoughts as take the point from it by emptying all the contents of the one world into the other. The two remain, even though one is Nothing and the other is the Absolute. He preserves for the real world, which now embraces subject and object alike, all the former qualities of the mental world as contrasted with the physical,—consciousness, internality, synthetic unity, and the like,—qualities which are significant only in a universe broken sharply into thought and things. In support of an 'immanence" doctrine of Ideas, it is necessary to show that Plato first conceives such a separation of subjective and objective existence, and then rejects it. But the opponents of this view are able to cite a score of passages in support of a doctrine of Ideas as independent and objective entities. Furthermore, they point to Aristotle's criticism, as indicating that Plato did separate or hypostatise the Ideas. Now a certain ambiguity of the term "hypostasis" is worth noting in this connection. If it is to mean that a property of a thing is separated from it and endowed (supposedly) with a distinct and independent existence, then the Ideas of Platonism were, according to Aristotle, an hypostasis. The essence Man, for example, which is inherent in particular men, is wrongly conceived as existing apart (χωρίς), like an "eternalised sensible." But this, I believe, is not the sense in which the term is taken by those critics who hold that Plato "hypostasized" the Ideas. They seem to be saying that he attributed an objective and independent existence to entities which depend for their existence upon consciousness of some sort,—i.e. mental concepts. In this sense, the testimony of Aristotle avails nothing, for he does not consider the question from that point of view. Hence, in order to decide what Plato taught

about the nature of knowledge in general,—whether the Forms were "immanent" or "transcendent,"—we are thrown back upon the dialogues. And the evidence from that source is altogether inconclusive.

Therefore, in what follows it is proposed to dispense as far as possible with the need of any theory of knowledge *ueberhaupt* and to examine the PARMENIDES as an analysis of mind from the logical, rather than the epistemological, standpoint. This is an interpretation towards which past criticism of the dialogue seems to have been converging, only to disagree once more on questions as to what Plato is teaching about the Forms of knowledge, *qua* Forms, in relation to consciousness. It is conceivable, however, that no doctrine of Ideas, in this sense, is really taught in the dialogues; that while Plato has almost everything to say about Ideas and their discovery, he has little or nothing to teach about their status with reference to a supposed realm of conscious Mind, on the one hand, or of unconscious Nature, on the other.

Chapter 1: The Eleatic Contention

THE dialogue we are to consider purports to be the narration by a certain Cephalus of Clazomenae, of a meeting and conversation between Parmenides, Zeno, and Socrates in Athens. Parmenides was at that time sixty-five years of age, his noted pupil about forty, and Socrates still very young,—an ephebus of eighteen or twenty. This fixes the date of the interview somewhere between 451 and 449 B. C. In any case, it is supposed to have occurred "many years before" the occasion of its description in the dialogue. The impression of remoteness in time is heightened by the further circumstance that Cephalus, the narrator, had the report from Antiphon, (the half-brother of Plato), who had heard it in turn from Pythodorus, a friend of Zeno. This hear-say character of the report (33) does not, however, mean that Plato has invented the meeting. He makes explicit reference to it elsewhere, and there is no good reason to doubt his testimony. But the device of indirect narration does suggest that little historical credence is to be given the details of the reported discussion. No one could reasonably accept for literal truth the substance of a lengthy conversation transmitted verbally after a lapse of half a century. And we must suppose that no such account of what the participants may have actually said on that occasion is here intended.

To what end, then, are these Eleatic "partisans of the whole" impersonated on the stage of the Platonic dialogue? At first sight, it is apparently for the sake of reproducing their notions of the Ent and Non-Ent, and the arguments by which they were defended, so that Plato's criticism may seem the more effective. The doctrine of the One, which annihilates space, time and number, is to be reduced to absurdity in its original exposition, and Parmenides refuted out of his own mouth. Jowett has given sufficient reason for rejecting this interpretation. It is inconsistent with Plato's attitude toward the Eleatics in the Theaetetus and elsewhere; it destroys the connection between the earlier and later parts of the dialogue; and no hint of opposition

to Parmenides is conveyed by any of the persons concerned. Furthermore, Plato seems to have been a stranger to what we understand by historical criticism. It is not his custom to attempt an accurate recapitulation of former doctrines, even with the intention of exploding them. Generally, and with the possible exception of Socrates, philosophers of the older generations are introduced in connection with some current version or perversion of their theories. Often he employs them as stalking-horses with which to assault the position of a contemporary school. Or again he frankly revises their original statements in support of some one of his own views. (34) In such treatment of previous thinkers, (usually normative or polemical, rarely historical), Plato is after all simply extending the Socratic method of interrogation: to elicit from the statements of others by means of a series of questions, not what they supposed they had meant, but rather whatever meaning was best fitted to the requirements of dialectical exposition. In this, too, he is followed by Aristotle, whose "exoteric discourse," although more impartial, still involves a considerable revision of his predecessors' theories for comparison with his own. (35)

The attempt to reconstruct the positive teachings of the early Eleatics or to deduce Plato's attitude towards them from the involved passages of the PARMENIDES brings us at once upon treacherous ground. It is not easy to decide from the meagre evidence whether Parmenides was, as most critics suppose, "the father of modern idealism"; or, as Gomperz and Burnet have argued, the precursor of materialism. Are we to construe the Eleatic One as Absolute Mind or absolute Atom? Conceivably, it might be both; the dogmas of modern idealism and materialism may own a common source. But the identification of this same One, in either sense, with the subject of the major portion of the dialogue makes the whole discussion a baffling succession of contradictions. So that, on this assumption, perhaps the most sensible interpretation gives us deliberate nonsense. But that is a resort of desperation. If we suppose, instead, that Plato is discussing, not the original Eleatic doctrine, but some one of the later tendencies in which its critical power is apparent, a more certain basis of interpretation is provided. For in its subsequent influence upon the course of Greek philosophy, the evidence is at once more ample and less equivocal. The doctrine of the One persists, to be sure, and is elaborated in diverse directions by rhetoricians, atomists, and eristics. It is not, however, the central feature. The weapons, rather than the cause for which those weapons were employed, are the chief bequest of the Eleatics. Zeno, the apologist, and not Parmenides, the founder, becomes the prototype for the later development, with which we may suppose this dialogue to be concerned. Thus, it will be possible to waive the question as to the nature of the Eleatic One and to eliminate a very dubious element from the interpretation at the start.

In its negative aspect, the poem of Parmenides is a criticism of the Ionian philosophies of nature, on the one hand, and of the Pythagorean philosophy

of number, on the other. So far as it is possible to judge by its effect, this criticism amounted to a demand for a more rigorous logical consistency in scientific explanation. Thereby is afforded a clue to certain fundamental principles of rational discourse,—obscure indeed and with a distortion due to overemphasis, but suggestive of the more explicit formulation at a later period. In their demonstration, at least, the theories of both Ionians and Pythagoreans contained a similar flaw, and it fell to Parmenides to disclose it. The point of his criticism is this: unthinking mortals profess to know and talk about *what is not;* but true discourse is entirely conversant with *what is,* i.e. with definite positive being, "for it is the same thing that can be thought and that can be"; hence, in so far as they know what is not, they know nothing. "For this shall never be proved, that the things that are not are; and do thou restrain thy thought from this way of inquiry."

In their quest for the primary stuff or substance of existence, "undying and ageless," the Ionians had been attempting to define the recurrences of nature. "It is not movement but rest that has to be accounted for, and it is unlikely that the origin of motion was discussed till its possibility had been denied." (36) Universal change, as one finds it in the weather and seasons, in birth and death, in growth and decay, in political upheavals, is for these early thinkers too obvious for speculation and too poignant for doubt. The wonder is that in all this evanescence any quality or thing should remain for contemplation, or return for recognition. It must be that all things arise from a single source, into which they pass once more. So preserved, each may in course of time appear again, and the fact of that recurrence is made intelligible. Now the most striking feature of this process was in the contrast it displayed. For, although everything is the same in its nature, it is also in perpetual transition from one distinct state or quality to another,—from dry to moist, from hot to cold. The water passing upward into air has become dry, and has ceased to be moist; yet the same substance shall return in the rain, passing out of the dry again into the moist. Change or movement is, as Anaximander expressed it, a strife of opposites, in which the balance or just permanence of nature is maintained by the inexhaustible something underlying all things. It required, then, that this substrate should be capable of assuming each of these diverse conditions alike; a coin, in Heraclitus' metaphor, of universal currency. The course of Ionian philosophy is mainly the attempt to refine upon this conception. Each successive thinker tries to improve the preceding account of a single substance holding together the opposite qualities of existence,—a substance at once determinate and diversified. In the Heraclitean doctrine of the flux, the contrariety and opposition that had characterized the process of change are made essential to its substance. The relativity of diverse things and qualities to the one abiding quality, (in whatever form conceived), implied the further thought that the primary stuff is just this "strife of opposites" itself; that nothing in addition to their "opposite tensions" is required for the "reason" of things; and, finally, that contraries presuppose

one another and are but the two sides of an identical process. (37)

Heraclitus asserts, in oracular and aphoristic language, what is one of the fundamental principles of matter,—its qualitative permanence despite, or rather by virtue of, its differences. It is unlikely that there should have been, to his way of thinking, any incongruity in the doctrine. Plato in reference to it says that it made reality both many and one, "for, say the more severe Muses, in its division it is always being brought together." (Soph. 242 D). But this formula, with its implied paradox, is a later adaptation. It is only when the other property of matter is adduced, namely its quantitative determination, that the logical difficulties begin to press for explanation. In other words, the relation of the substance to its attributes presents no intrinsic problem until it is maintained that identity implies unity, and difference implies multiciplicity, i.e. when the process of becoming has been reduced to terms in an order of measurement. There are perhaps some traces of this, a Pythagorean influence, in the teaching of Heraclitus, e.g. the references to a harmony and "measures" in the flux. But the "measures" here invoked to pilot the upward and downward course of things can scarcely be compared with the harmonic proportions of Pythagoras. The relativity of nature is expressed as a *quale,* as an "ever-living fire," not as a *quantum* or principle of limitation.

Before the force of Parmenides' contention can be perceived, the whole subject has to be turned over, so to speak, and entered from the opposite direction. The Ionians, starting from the facts of mutability and motion, sought to describe the constant elements therein. The Pythagoreans, on the other hand, seem to have begun with the permanent and ordered aspect of reality, as discovered in number, thence proceeding to account for change. The fact that qualities so elusive and fluent as musical tones should have been the ones to reveal these proportions, must itself have contributed to the conviction that in the latter alone is reality inherent. Of course, the Ionian principle of a simple quality, persisting in the midst of diversity, is not necessarily invalidated. But it becomes irrelevant. When the substance of things is located in a system of monads and identified with the quantitatively determinate, no doubt its permanence as to quality is implied. It is implied, however, much in the same sense as the force of gravity in mechanics, standing as constant in every equation. In other words, the uniformity of the primary substance, as a principle of explanation, has reference to the order of nature approached from the side of its variation and contrast. But for a world completely determined by number and figure, as the Pythagoreans conceived it to be, it ceases to be a principle of explanation; since mathematics deals solely with extension. Instead of the shifting, interpenetranting qualities of natural changes from which the Ionian speculations set out, the fixed boundaries and limits of nature, as expressed in series of numbers and their relations, provide the subject-matter. And it is significant, in view of subsequent developments, that the indivisible points or units, from whose extension into the several number-figures the

whole universe was supposed to have been derived, were known (probably by Pythagoras himself) as "boundary-stones," because of the pebbles employed in calculation. For, this is the word that comes to denote a "term" (ὅρος) in a definition. From Pythagoras on, the intelligible is treated more and more frequently as synonymous with the limited, in this sense of mathematical integers and proportions. The "table of opposites," which is an element in all Greek philosophy, is conceived, not perhaps as a mere numerical series, but as the limits of a "harmony" in a closely analogous sense. "It is not too much to say that Greek philosophy was henceforward to be dominated by the notion of the perfectly tuned string." (38)

The unqualified rejection of *what-is-not* comes from the critical acumen of a thinker acquainted, on the one hand, with the theory that all things are number, and on the other, with the Ionian conception of an abiding quality capable of assuming opposite forms, especially as developed in the Heraclitean philosophy of flux. To the Pythagorean Ameinias, Parmenides owed his "conversion" to the philosophic life. His poem is, in the main, a renunciation of the views that he had formerly adopted from that tradition. But it contains statements as well that must be referred to the teachings of Anaximines and Heraclitus. In all previous philosophies of nature, Parmenides detected the same irrational assumption: the *possibility of negative being.* And his insistence that truth is wholly incompatible with any such assumption is best understood in the light of his acquaintance with the leading principles in both Pythagorean and Ionian philosophy. He turns the one against the other,—the principle of quantitative determination against the principle of qualitative permanence, and vice versa,—thus finding an inconsistency common to both. From the Ionian, he demands the terms, limits, definition, or ratio of the supposed process of becoming. If there is a process of rarefaction and condensation, some measure of more or less is presupposed. "But in what way and from what source could it have drawn its increase?" The dilemma is clear. If an identical substance is to be increased or diminished in a given direction, either the change is caused by some other determinant, which contradicts the conception of a single primary substance; or the change is caused by nothing, which is meaningless. It might be said that Heraclitus had met this difficulty by identifying the continuous substratum with the process of change itself. But when submitted to definition, this supposed quality reveals an even more glaring contradiction. The Fire or flux must be at once what it is and what it is not, since it is said to be a movement by and through contraries; it is by definition, then, both a positive and negative magnitude. Such is the absurd opinion of the "undiscerning crowds, who hold that it is and is not the same and not the same, and all things travel in opposite directions!" But the Pythagoreans labored under an equal delusion. For, although their system possessed a principle of limitation, this was at the cost of continuity. They had perforce to introduce the meaningless void of negative being, in order to explain their discrete series of numbers. The indivisible units, from

whose accretion the whole universe of nature is constructed, implied a separation and differences, not in themselves acceptable to the terms of discourse. By its implicit antinomies, the concept of change or diversification, as heretofore maintained, is seen to be unintelligible. "Nor is (the One) divisible since it is all alike, and there is no more of it in one place than in another, to hinder it from holding together, nor less of it, but everything is full of what is. Wherefore it is wholly continuous; for what-is is in contact with what-is." Pushed to an extreme consistency, no process is possible for homogeneous quantities or units, save mere repetition of identity. But this is the very antithesis of change.

If Parmenides is to be called the "father" of anything, ancient or modern, it is of dialectic. He is the first of a long succession of thinkers, whose characteristic method is an attempt to establish the truth in any field of inquiry by eliminating contradictions among the several judgments already propounded. For all dialectic has its "way of belief," deceptive and debatable, and likewise its "way of truth," from which the dross of inconsistency has been finally purged. Indeed, a more suitable motto for the dialectician could scarcely be devised than the words in which Parmenides tells "how passing right through all things one should judge as they are the things that seem," or that other admonition to "judge by argument (λόγῳ) the much disputed proof uttered by me." The direct concern with discourse in its logical import, and furthermore, the conviction that truth or being is all one with meaning and something to be disentangled from the conflict of existing notions,—these are the unmistakeable marks of the calling. And it is but a degenerate form of the same which Aristotle stigmatises, as the art that deals with matters of opinion rather than of fact, wholly by means of debate. (39) The starting-point of Parmenides' philosophy lay, after a fashion, in the "region of opinion,"—in the ambiguous and discrepant conclusions of both Pythagorean and Ionian speculations. From these he adopted his major premise: If there is no Void, then there can be no motion. On dialectical grounds, he rejected the Void, and hence the possibility of motion. (40) Now few propositions have seemed more barren in their uncompromising dalectical rigor than this. But his conclusions were the least effective of Parmenides' contributions to his own age. It was his peculiar method of argument that arrested the attention of subsequent thinkers, —the novel and forceful emphasis upon stringency of proof in preference to variety of observation. In consequence, the atomists when they came to assert once more the reality of motion were constrained to analyse and clarify the antecedent conception of a Void. It is no exaggeration to say that "if Parmenides had lacked courage to work out the prevailing views to their logical conclusion, and to accept that conclusion, however paradoxical it might appear, men might have gone on in the endless circle of opposition, rarefaction, and condensation, one and many, for ever." (41) But there was a further consequence, which happens to be our chief concern here. It was owing largely to the refinement and systematic formulation of these same arguments that the

structure of argumentation came to be a direct object of scientific inquiry.

The antinomies of Zeno were intended to serve as a rebuttal to his master's contention that there is no Void and that all is one that is. Parmenides affirmed the One; Zeno denied the Many. "Thus, you delude the world," remarks the Platonic Socrates, "into supposing that you are saying different things, when you are really saying much the same." "Admittedly the same," replies Zeno, "except that my arguments attempt to show how much worse are the contradictions in which the partisans of the Many are involved, than any which they charge against us." This method of indirect proof by the reduction of a contradictory thesis to absurdity (which is developed well-nigh to perfection in Zeno's dialectic) becomes the typical elenchus of all later Eleatics. Mr. Russell tells us that the paradoxes of a finitude in space or number, which posterity has mostly regarded as more ingenious than sound, are at the foundation of modern mathematics. (42) And it seems reasonable to suppose that Zeno intended his antinomies primarily as a challenge to the contemporary Pythagorean studies in the science of number. But back of them there lies a more general logical problem which, largely in consequence of these puzzles, was to occupy the efforts of thinkers for several generations. It should be remembered that as yet not even the elementary principles of discourse had been formulated. It is possible that the Laws of Identity, of Contradiction, and of Excluded Middle were familiar to Plato. (43) Certainly, they are not explicitly stated until Aristotle. The arguments of Zeno, then, (aside from their immediate mathematical import), exhibit not so much the beginnings of a science of logical structure on his own part, as the want of such a science on the part of his opponents. The subsequent exaggeration of his *aporiae* serves, at least, to bring into view the general problem of predication and the connection of identity and diversity in the definition of essences.

The eight or nine paradoxes that have come down to us seem to fall into four main types of argument.

I. Plurality of existence, (i.e. extension), in space or in number must be both indefinitely small and indefinitely great:

(1). If the Many consist of indivisible parts (as claimed by the Pythagoreans), none of the parts possesses magnitude; else it would be further divisible. Hence, the Many are indefinitely small. But for any two separate portions of the Many to possess magnitude, a third portion also possessing magnitude must intervene, and so on *ad infinitum*. Hence, the Many are indefinitely great.

(2). The Many are numerically finite; but their number is also infinite, since between any two terms of the series a third must intervene, and so on *ad infinitum*.

(3). Everything that exists is situated in some definite space (τόπος); but this space is included in another, and that in a third, in an infinite regress.

II. The Many (severally) are both the same and not the same as the Many (jointly).

(4). Each separate grain of a bushel of millet, in falling, makes no noise; but the same bushel falling as a whole does make a noise. Is its noise compounded of silences?

(5). The existent Many are unlike in that they are distinct individuals, but alike in that they agree in being distinct, i.e. each is similarly a separate unit, (vide PARMENIDES 127D *et passim,* and Proclus, On the Parmenides, II, 143).

III. The velocity of one or more bodies is relative to an indefinite series of moments in time and of points in space; hence, the total velocity is indefinite.

(6). Before you can cross the race-course, you must first traverse one-half the distance; but to do this, you must traverse one-quarter, and so on *ad infinitum.* Hence, it is impossible to cross the race-course within a finite period of time.

(7). Achilles can never overtake the tortoise, although he travels faster than it does; since the interval, which is progressively diminished in the proportion of their respective rates of advance, becomes less and less *ad infinitum* without ever completely disappearing.

IV. The motion of one or more bodies is wholly relative to a state of rest. But this is incompatible with the reality of motion.

(8). At each moment of its flight an arrow occupies a certain position in space, which is stationary; hence, the total flight of the arrow consists of states of rest,—the negation of motion.

(9). Two chariots at the turn of the arena are moving in opposite directions. Each traverses a distance of its own length as measured on the side of the arena in an equal period of time. But each passes the other in one-half that period of time. Hence, their velocity is what it is and also double what it is.

These arguments, taken *au pied de la lettre,* have often been dismissed as altogether frivolous. Of course, Achilles diminishes the distance between himself and the tortoise until he overtakes it. And obviously infinite divisibility is not incompatible with finite magnitude. How could any thinker be so absurd as to suggest seriously that motion is not a fact because it can be measured? or confuse "the imperfection of the senses" with a discrepancy in the objects? But critics who thus profess to refute Zeno by an appeal to experience do little more than repeat the objection of Dr. Johnson's stick against Bishop Berkeley's table: that is, they merely affirm some instance of the very principle in question. Consider, for example, the *aporia* of the grain of millet. It has been customary to attribute this to a malapert psychology. Lacking a proper doctrine of the senses (so it is said), Zeno does not take into account

the fact that sensation depends upon a certain degree of intensity in the stimulus. Up to a point (varying with the physical condition of the percipient) the forces in the objective process are insufficient to produce sense- perception, —the single grain of millet falls to the ground without perceptible noise. But even a slight increment in these forces may be enough to raise their impression above "the threshold of consciousness," so that numerous falling grains result in perception of noise. When these details of the mental process are exposed, the difficulty vanishes. On the contrary, it is just here that the real problem, which Zeno is raising, begins; or rather the supposed solution only restates the original perplexity in terms of modern psychology. That Zeno is raising a fundamental question of logic, expressed by way of illustration in a psychological context, is indicated indeed by the considerations underlying the modern account. For, this account rests upon a theory of apperception which, plainly going behind the psychological process, attempts to satisfy the same logical necessity that the Eleatic dialectic first invoked. No chance coincidence caused Leibnitz to expound his doctrine of *petites perceptions* by means of an instance substantially identical with the "grain of millet." The roar of the surf, he argued, is in reality (i.e. logically rather than genetically) composed of the numerous sounds of the single waves breaking over the shale, each one of which is too minute to be perceived of itself. Nevertheless, each must produce its effect, an impression on us, "since otherwise their total,—as a sum of mere nothings,—could not be heard." (44) By parity of reasoning, each grain of millet in falling does produce an effect commensurable with the total effect of the falling bushel. If, however, we were pressed for further reasons, we should appeal to the so-called Laws of Thought,—that the whole is equal to the sum of its parts, or that everything must either be or not be, or that everything must have sufficient reason (or cause) why it is, rather that why it is not. For, this particular issue devolves upon a set of principles implied by the analysis of any fact into its component parts,—whether it be the constituents of sound, the particles of a body, or the segments of a mathematical class.

Thus, the several antinomies offer a wide selection of examples, but an examination of all reveals a single underlying perplexity which each one in turn exemplifies. It is the same difficulty which Parmenides had pointed out in the Pythagorean and Ionian philosophies of nature, viz. the apparent impossibility of reconciling, under a pluralistic conception, the two primary dimensions of nature,—its continuity of essence and its extension within the limits of numerical and spatial aggregates. Around this he constructed a series of puzzles whose solution must depend eventually upon a thorough investigation into the logical structure of mind. This was not forthcoming, at least in any systematic fashion, for another half century. But in the mean time, the puzzles themselves were to be explored and their intricacies embellished with many a curious corollary; until they should become so stereotyped and technical that there was danger of their blocking effectively the road to further enlightenment. In

spite of this, the interlude served to make the nature of the Eleatic contention more familiar and its demands more provocative, and it is safe to say that it prepared the ground for the great development of logical theory that followed.

Chapter II: The Problem of Predication

NE outstanding feature of the efforts of Sophists and Eristics during the half century and more after Zeno is the elaborate way in which they sustained this problem of predication, with apparently not the slightest advance toward its solution. It is difficult to say what constructive investigations they may have carried on, since their work is known to us only through the report of avowed opponents. Both Plato and Aristotle, as well as their followers in Academy and Lyceum, had to meet the formidable criticism of these thinkers and were anxious to belittle their efforts as much as possible. Their exclusive reputation in the eyes of posterity for perverse and fallacious argument is doubtless unfair. Yet every one of them, from Gorgias to Eubulides, strove to magnify after his fashion the perplexities in discourse which Zeno had invented. Why should men who were thinkers by profession have spent their time trying to strengthen these obstacles for science? To begin with, there is an intrinsic interest in the puzzles themselves. They are devices requiring no little skill for use against the various examples of unguarded reasoning, as one encounters them in disputation. Then, too, in an age when the Athenian gentleman found his business as well as his leisure engrossed by conversation and debate, the possession of such skill, however reprehensible, was a mark of superior achievement. There is small reason to suppose that Zeno devised his paralogisms for any such general purpose as the confusion of argument on either side of a debate. But since, in effect, they challenged a fundamental principle in all argumentation, they were readily adaptable to that dialectical skill which undertook to "make the weaker argument appear the stronger." That the educated Athenian shared the interest of his teachers in the display of these weapons is attested even by their severest critics. Plato, in the Euthydemus, has described in burlesque what was probably a familiar scene at the Lyceum, on the streets, or even in the Assembly, when any of these "controversial experts," or their pupils, found a suitable victim: the crowd of spectators eager for the sport, the advantage taken of any little slip of speech, without concern

for its meaning, the boisterous amusement of audience, victor, and even vanquished when the trap was sprung successfully. Thucydides has Cleon censure the Athenians for being slaves to paradox, disdaining the familiar, showing interest even in the most vital debates as mere tournaments of wits, and regarding facts solely through the medium of rhetoric. Euripides often complains of the baneful influence of "too fair speech," with its tendency to conceal injustice. (45) Indeed, this obscurantism was perhaps due quite as much to the zest of the Athenian public, "the greatest of all Sophists," as to the wit of their teachers, who purveyed it. (46) The Sophist of the fifth century has been described as "half professor and half journalist." (47) There was a temptation to play up the "sensational" items in his learning,—the startling phrase, the clever paradox, the novel distinction,—in order to command the interest of his public, if even at the cost of their enlightenment. The Sophists were wont to discuss with their pupils, "the laws and customs of other peoples, scientific curiosities, the capacities of human nature and their development, the best forms of politics, and in short tried to excite astonishment by means of the theories which they borrowed here and there from earlier and more independent thinkers." (48) Thus, in addition to the skill in disputation which they afforded, Zeno's puzzles and similar bits of erudition must have been of further use to the Sophists, in that they served to keep them in the forefront of the public interest, (if not of the public esteem), and to advertise what was then a somewhat questionable profession. Although by this intensive elaboration of the Eleatic contention for purposes of effective debate, the Sophists were largely instrumental in laying bare the underlying logical structure and stimulating its further study, still they must be held equally responsible for a factitious obscurity with which the subject has been endowed. From its earliest beginnings with these thinkers, the science of logic has been pretty widely identified with what (in a later and not Greek sense) is called the "form," as distinguished from the "matter" of discourse. In other words, it has been more or less confined to a set of rules by which a debater is able to conceal or bolster up the weakness in his own position and to expose the pitfalls in his opponent's. Logic, first sponsored by rhetoric, has never completely lost its youthful associations. The difficulties of exposition, which belong properly to the latter discipline and were the chief concern of the Sophists, have been persistently confused with the principles of implication, with which the former is alone conversant. Consequently, the *theory* of logical proof has been subject to constant disagreement, although there is a fairly general consent as to what does or does not constitute logical proof in a given instance. The meaning of a proposition may be as clear as daylight. But challenge its consistency *as* consistency, and its definition and justification are at once beset with difficulties quite out of proportion to any complexity found in the premises themselves.

Another reason for the prominence given by the Sophists to the problem of predication, or being, is commonly found in the conflict of customs, laws, and scientific speculations which was becoming acute throughout the Hellenic

world after the Persian wars. Intercourse among the Greek cities, through traders and travelers, made critical comparison of hitherto unquestioned codes inevitable. It began to be fashionable to doubt. The Sophists, who were "wanderers from one city to another," (49) found themselves in a position to furnish this polite skepticism and cosmopolitan interest with curious samples. They were acquainted with folklore from Sicily to Asia Minor, well posted in the latest scientific development in Croton, able to expound a novel physical doctrine from Abdera or Clazomenae. Such information, employed with sufficient tact and prudence, was likely to impress the crowd. But the orator or litigant who impugns precedent and usage in an opponent's case forfeits the right to appeal to them in his own behalf. As the authority of ancient wisdom and religious dogma was dissolved, it became more important to safeguard one's own assertions against contradiction and to detect any inconsistencies in the assertions of others. Thus, as Prantl says, (50), the Sophists were bound up to rhetoric by a double incentive: on the one hand, they desired to fit the spoken word to the intended meaning with the greatest precision, since their only objective concern was with the verbal expression of the thought; on the other hand, they wished to acquire control of others by means of speech; "and thus arose the practical rhetorical application of logic." The various difficulties, which had their root in the Eleatic contention concerning "what-is," were of great moment in this undertaking for the reason that every judgment one might choose to criticise involved the connection of a subject with some kind of being.

At first, the prevalent interest lay in the means of constructing and expressing effective propositions, rather than in the principles to which correct judgments must conform. This applies equally to the earlier rhetoric of the fifth century and to the later and more intensive logistic of the Megaric and Cynic schools. Both seem to have been concerned primarily with the refinement, not the analysis, of argument. "An understanding is not sought with the other in order to establish the truth; the opponent is not to be convinced, but simply talked down and ruled out of court." (51) The statement is extreme, perhaps, but it indicates the wholly forensic character of the Sophistic method. Propositions were carefully examined and criticised, not for the sake of any principles of implication they might reveal, but in order to provide rules and schemata for the successful presentation of an argument before the authority of "natural reason." This is not especially to their discredit, for it is difficult to see how, under the circumstances, they could have proceeded otherwise. Judgments do not occur *in vacuo,* but specify the meaning of concrete activities. The statement of any supposed form of knowledge implies a need and an objective. And this context consisted, for the Sophists, in the need of supplanting traditional beliefs with novel doctrines that should be able to compete successfully against the old for the favor of the crowd. Hence, they were led to examine attentively the *form* (in the sense of "good form") of the debated propositions concerning justice, piety, the good and the bad in

States or in men. It was natural enough that the logical import of these propositions should have come to be revealed mainly in the light of their forensic value. The circumstance is worth noting, since this early conception of reason as arbiter in a dispute, and the analogy of its formal principles to the restrictions of legal justice, have left their mark upon subsequent inquiry. True, Plato and Aristotle made the necessary distinction between rhetoric and logic, recognising clearly that the province of the latter is in the forms or categories of rational discourse, irrespective of skill in debate. But with the Stoics there is a return to the original rhetorical or forensic view of the subject. (52) Logic is treated as correct method, as a body of rules for fair debate, rather than as the study of the generic structure or principles of mind. And in the former treatment it passes, with many modifications, into the Schools of the Middle Ages. (53)

So far, there is little to choose between the earlier Sophistic and the later Eristic in their attitude toward the Eleatic paradox as applied to dialectical procedure. In both types of thought the obstacles and pitfalls of reasoning are magnified, with what appears to haxe been in part an intrinsic interest in the subtleties of the puzzles themselves, and in part a regard for their value in debate, as weapons for criticising traditional judgments. We have it on Plato's authority that the distinction between the "merchants of wisdom" and the "controversial experts" was never clearly defined. Nevertheless, there are real differences between the two methods, recognised by Aristotle in his division of Dialectic into the search for the logical consequence of a proposition and the attempt merely to vanquish an opponent in debate. (54) By this distinction he does not mean that the forensic motive is entirely lacking in the first type, and only present in the second. For elsewhere he has set all Dialectic, in conjunction with rhetoric, over against his own didactic method, on the ground that the former deal with words and discourse instead of with facts (55). It appears that "Zetistic," which he assigns especially to Socrates and Plato, had a larger function than mere skill in debate, since it sought knowledge by means of such skill; while Eristic is content with the exhibition of its skill alone, without further regard for truth or falsity. The accepted distinction between the Rhetoricians of the fifth, and the Neo-Eleatics of the following century, depends upon similar considerations. We find the former attempting, in one way or another, to locate the perplexities of being in the nature of discourse as they conceived it; so that their dialectic, although it may have succeeded only in raising specious difficulties, which Socrates and Plato were at pains to avoid, did partake of the method of search. Thus, Prodicus of Ceos, under whom Socrates studied (56), emphasizes the grammatical aspect of predication by insisting on minute precision in the use of words. The samples of his labor, as they have come down to us, may seem somewhat trivial. He is said to have divided (διηρεῖτο) pleasure into joy delight, and hilarity (57); to have made the distinction between "to become" and "to be," "good" and "awful," ποιεῖν and πράττειν, between τελευτή,

πέρας, ἔσχατον, and between θρασύ and ἀνδρεῖον (58). But with all their superficial pedantry, his investigations anticipate one of the chief elements of the Socratic method, —viz. definition of the universal (το ὁρίζεσθαι καθόλου), as well as the διαίρεσις on whch Plato was to lay such stress in his own dialectic. What remains of the paradoxical treatise of Gorgias, "On Nature or the Non-Being," is still more to the point. Whether it is a studied defense or a refutation of Eleaticism, the result of its arguments is to make explicit the perplexity of "what-is-not," as this relates to the form of the judgment. To deny the possibility of significant negation is to annihilate the significance of any statement whatsoever. There is no need of supposing, with Prantl, that Gorgias in his threefold argument takes the standpoint of Parmenides' abstraction and merely "amuses himself with the capricious and petulant expression of that exaggerated assumption." (59) Nor need we go to the other extreme of modernising Gorgias, by supposing he intended to demolish the "ultra-phenomenal or Noumenon." (60) His three theses are sufficiently intelligible if they are simply regarded as an elaboration of the Eleatic contention, as refined upon by Zeno and Melissos, in the light of its consequence for rhetoric. The first thesis starts from the premise that "what-is-not is what-is-not," i.e. the Eleatic denial of negative being (61), and argues that the statement itself attributes being to "what-is-not"; from this it is supposed to follow that being is denied of "what is," so that the argument leads to the impossibility of affirmative, as well as negative, predication. The second thesis assumes the being of "what is" and argues that it cannot be apprehended, since both the true and the false (here identified with negative being) are objects of judgment; thus, "what is" cannot be distinguished from "what-is-not." In the third thesis, it is granted that "what is" is what is known (62), but it is reasoned that two propositions, having separate subjects, can never mean an identical being; hence, even though "what is" were known, its being would be ineffable and could not be communicated in discourse. In this way, by a regressive complication, Gorgias represents the strength of the obstacle for reasoning, which the denial of significant negation set up in the absence of an adequate logic. To the modern mind, the fallacies involved in the proof are almost too obvious for comment. But it is well to remember that the difficulties occasioned by them were real enough to engross the attention of thinkers in Athens and Megara for over half a century; until Aristotle deemed it advisable to expose them in systematic detail. (63)

The "age of the Sophists" is, above all, as Burnett observes, an age of reaction against science. (64) The conflict of theories and the apparent inconsistencies of speculations that had overstepped too far the bounds of their evidence held the centre of the intellectual arena. Under these circumstances, the quest for the "undying and ageless" Nature of things came to be regarded by most of the learned as a futile enterprise. The professed wisdom or wit of the Sophists was employed, by design, with what was controversial in opinions, customs, and laws. But while they were critics by profession, they seem to have been

searching for some constructive formulation of their views, although this motive is almost wholly lacking in their Socratic successors. Now to one who persistently doubts the attainment of scientific certainty, two alternative views of reason are available: he may choose to be consistently incredulous regarding the truth of any belief whatsoever and assign its worth solely to the concurrent might of persuasion, whether by eloquence or violence; or else he may distinguish the certain from the true and, while doubting the former, define truth distributively within the various judgments and institutions which reasoning may produce. The first standpoint is expressed, in one way or another, by the majority of Sophists in the fifth century,—Hippias, Prodicus, Gorgias, Callicles, and others. The second represents the reaction of Protagoras to the controversy over being, or predication, which came out of the scientific conflict of his age. One of the arguments of Zeno,—the so-called "grain of millet," —comes down to us in the shape of a supposed dialogue between its author and Protagoras at Athens. And the reference to "what-is" and "what-is-not" in the famous homomensura principle of the latter is further indication that the Protagorean philosophy was directed, in part at least, against the paralogisms to which Zeno's dialectic had given rise. Its chief contribution to logical theory lay in the insight as to the discursive nature of truth, viz. that the true is (as we might say) a function of reasoning rather than of things reasoned about. It is likely that Protagoras was the champion of practical commonsense in opposition to the curious and subtle refinements of contemporary thinkers. (65) He may have felt that all these lengthy disputations,—about one substance or many, divisible or indivisible points, squares and circles, and in general about what can or can not be affirmed,—were neglecting the chief consideration: that whatever the decision might be, it must in last analysis consist in the actual judgment of one or more of the disputants themselves. The limits between the true and the false, between what is and what is not, are in any case the limits which man himself establishes. The right code of laws will be that which some man or group of men *has* promulgated (66); the correct quantity, shape, or motion of things will be whatever they have been humanly estimated to be: in short, whatever truth or value *is* predicable of any subject is that which men have deemed to be predicable,—all this talk of its impossibility notwithstanding. From this point of view, it is easy to see why the positive enactments and sanctions of organised society are, for Protagoras, the whole criterion of the good. (67) But the doctrine is misleading, as Plato points out, and doubtless it suffered the extreme misinterpretation which he suggests. If it be said that the true is matter of human opinion or judgment, there is danger of converting the statement so as to mean that each and every opinion is equally true. On the other hand, the doctrine also lends itself to the more rational (Platonic) interpretation, that while man is the measure of reality, and truth is inherent in definition, nevertheless there are differences of better and worse in the measuring or defining faculties of men. It is impossible to say surely whether Protagoras himself was aware of

this ambiguity, or even in case that he had been, whether he would have cared to resolve it. He did at least give prominence to the possibility of improving or educating judgment to the end that in any debated subject-matter, (and no topic, so he seems to have taught, is wholly undebatable, but each offers contrary views), "the weaker reason should be made to be the stronger."

Thus, out of the perplexities of being or predication there begins to emerge the genuine subject-matter of logic, as the relations of forms of mind, revealed in the structure of judgments. Although no one before Socrates seems to have made this an explicit object of inquiry, or to have proposed a deliberate analysis of the nature of definitions, still the doctrine of the three representative Sophists already mentioned are premonitions of just this sort of investigation. The study of synonymous terms with which Prodicus was engaged, Gorgias' exposition of the Eleatic contention in its apparently destructive consequences for all rational demonstration, and especially the "Throwing Discourses" of Protagoras, with their stipulation that the limits of being are the specifications made by man,—all indicate after their fashion the general direction in which the solution of the problem lies. In the teaching of Socrates, the importance for dialectics of the *logos,* or rational definition, to which Parmenides had first given prominence, becomes the central theme. The characteristic puzzles, supposedly involved in the act of judgment, wherein a unitary subject is connected with a multiciplicity of attributes, also received ample attention on occasion, as suggested by numerous passages in the "Socratic" dialogues of Plato. But there is a notable shift in the emphasis and manner of their employ. To say that this logistic in the hands of Socrates is governed by an ethical, rather than a rhetorical aim means that its familiar antinomies have gained perspective and become merely incidental to the pursuit of wisdom. In the CHARMIDES, which exemplifies the Socratic method, as in the EUTHYDEMUS, which parodies the Sophistic, the Eleatic problem of negative being is discussed in connection with the possibility of wisdom and ignorance. With respect to the arguments themselves, by which the perplexity is presented, there is little to choose between the reasoning of Socrates in the former dialogue and the reasoning of the two "heroes" of Thurii in the latter. In each, Plato has given us what was probably a recognised and conventional method of attack,—how is it possible to know what is not, to learn what is unlearned, to distinguish between what is and is not knowledge? But in the case of Socrates it is made plain that these perplexities are merely the beginning of a search, whose objective lies far beyond them; they are a means of administering the "torpedo shock," to unsettle the habitual, and prepare the soul for the more critical definition. The "sophistic ritual," on the contrary, never advances beyond these pranks of initiation, and merely contents itself with the intellectual upsets which its puzzles occasion. The one view holds that no matter how numerous the apparent obstacles, a right and fitting definition exists for every essence; the other, that no matter how fitting the definition appears to be, sufficient obstacles can be found to prevent its acceptance.

The Socratic logic of universals found its material in the search for reliable standards of reference, for typical meanings among the various results of particular inquiries, from the making of a bridle to the making of a City-State. It is therefore all the more remarkable that the closely allied thinkers of the Megaric and Cynic schools, who had come directly or indirectly under the influence of Socrates, should have completely disregarded his conjunction of logical theory with the methods of the several arts and sciences as then pursued. It was plain by this time that all of the dialectical problems that had arisen in the scientific controversies of the previous century brought one eventually to questions about the act of judgment or the definition of meaning itself. In the possession of this insight, the Eristics can be said to show a more distinctively logical interest than the Sophists before them or the Stoics afterward. (68) But their defection in almost every other respect from the traditional standpoint of Socrates is indicated by the direction in which this interest took them, and the character of the speculations in which they became involved. Their chief anxiety seems to have been to impugn the validity of any conclusion, (its premises being largely a matter of indifference), by developing in imitation of Zeno an insoluble contradiction between the substantive and its attributes. Since every significant proposition expresses the inherence of one or more attributes in a single subject, the scope of these Eristic arguments was practically unlimited. But there could be only one outcome for them, if taken seriously,—the reduction of all discourse to the bare statement of identity. It is difficult to say whether the older generation of Socratics intended any such enormous futility. Antisthenes is said to have defined the *logos* as that which expresses the "what" of a thing, (Λόγος ἐστὶν ὁ τὸ τί ἦν, ἢ ἐστι, δηλῶν, Diog. L. VI. 1, 3), and to have argued from this that no true definition is possible, since every formula is complex and the simple "whatness" of the subject must always elude it. (69) Furthermore, he held that to contradict is impossible, because two persons must either agree about an identical subject or else, if they differ, they must be talking about different things (70). Now this position, as Aristotle suggests, had a certain justification, (for example, against an exaggerated Platonism), if it were taken to mean that a subject is never completely exhausted in its various predicates, but remains something unique,—an individual substance as such. With an eye to the dialectic alone, however, one could easily go on to the absurd view that no qualities can be predicated of an existence without thereby denying its identity. To this extreme, the Eretrians did actually push the reasoning, so that they would admit only the proposition "A is A" to be valid. (71) The same tendency toward what Prantl calls the "nominalistic fragmentation" (Zersplitterung) of the judgment is even more marked in the Megaric than in the Cynic school. Euclides appears to have adopted the Socratic conception of the good or the fitting as the reason in all existence. Having connected this in a curious way with the Eleatic contention, he manages to abandon the natural basis of both doctrines. The Good, or Wisdom, so he taught, is One, and

since there can be no not-One, or Other, it follows that evil is non-existent. From this point of vantage, Euclides, or his disciples, proceeded to "tackle" the (non-existent) plurality of sensation,—generation, corruption, change, and motion,—all of which were evil. (72) As with the earlier Eleaticism, the technic of criticism was stressed to the exclusion of its positive results (whatever they may have been). For although these Megarics were "friends of the Ideas," in the spirit of Socrates, and championed the claims of reason against uncritical opinion, yet their ardor was a source of confusion rather than light. From the strictures of Plato and of Aristotle, one gathers the impression that these thinkers had come upon a novel problem and were enamored of it, not for its possible solution, but for its own spinosity. They were loth to gain the quarry for the loss of the pursuit, and having made a profession of dialectic, were unmindful of its ends in the over-refinement of the means. What else can we conclude from such arguments as that whatever is created is better than what is uncreated, and whatever is grammatical is better than what is ungrammatical, and so with the rest; but nothing is better than the Cosmos; hence, the Cosmos is both created and grammatical? (73) Or from the five schematic elenchi devised by Eubulides,—the "Electra" for example? "Electra at the return of her brother Orestes knew for a certainty that Orestes was her brother but did not know that the man standing before her was her brother Orestes," and thus she knew and knew not one and the same thing. (74) Here was obscurantism deliberate and systematic. The only lesson it could teach was the very dubious one that, so soon as you attempt to join terms to one another, inevitable confusion results.

I have already alluded to one source of these perplexities in the embarrassment that attends the defense of a belief against the charge of inconsistency, where it is made a question of the principles, apart from the subject-matter, of proof. (75) The Socratics were able to exploit this predicament by the skillful application of the paradoxes of Zeno in the field which their master had done most to elucidate. It is likely that two circumstances had much to do with this twist of their interests. First, their Eleatic bias: Socrates had probably discussed similar questions concerning unity and diversity without troubling himself much about their further analysis, and so those disciples who had come earlier under the Eleatic influence, (Euclides, directly, and Antisthenes, through his first teacher, Gorgias), stressed the elements in his teaching which had seemed to them most misunderstood and also, in the light of their former allegiance, the most important. Plato was of the opinion that they failed to grasp the true import of either doctrine. However that may be, the perplexities in discourse which were for Socrates only a working doubt, a propadeutic to more serious business, became in the hands of these thinkers something metaphysical and final. Nor was their skepticism of that urbane variety in which the older Sophists had indulged, since by assumption it permitted no possibility of compromise. They had learned that Being or Truth is an indivisible identity. They had also learned that

knowledge of Being is wholly a matter of reasoning by definitions. But since every definition introduces multiplicity, true Being must be indefinable, true Wisdom unattainable. Therefore, it was incumbent upon them to play up the pluralistic dilemma by magnifying as much as possible the puzzles of predication. It was no mere grammatical consideration that led to Lycophron's radical suggestion that the substantive verb be abolished from language, since by its removal the predicate would no longer represent an addition to a unitary subject. (76) The second circumstance was that Cynic and Megaric found themselves in increasing opposition to the prevalent trend of thought in Athens. Their reaction took the form of a somewhat factious and doctrinary criticism; it became official and scholastic. With the important exception of the Pythagorean order,—there had been previously no *institutions* for learning, no organised groups severally possessed of their own established doctrines and aggressively aware of the points at issue with other groups. But in this period from the beginning of the fourth century, it becomes possible to speak appropriately of schools of philosophy, each under the dominant influence of some preeminent thinker,—Isocrates, Plato, Aristotle in Athens, Antisthenes and Euclides near Megara, Aristippus at Cyrene. A condition of philosophical *stasis,* so to speak, is one result of this intellectual organisation. Formal differences and questions of technical import are emphasised. "The Athenian schools of philosophy may be compared with the main column of a victorious army; the Megarians resemble a body of sharp-shooters who hover on the enemy's flank, harass his rearguard, and check his advance." (77)

It was in this quarter that Plato found his most persistent critics. The attacks of both the Megaric and the Cynic schools centred about his account of predication, or what he called the participation of things in the Ideas. All of these objections were typified in the argument of the "third man," and raised a difficulty to which Plato returns again and again in the course of his writings. Now this argument was almost certainly a Megaric product. It has been traced back to Bryson, an associate of Socrates, who with Euclides founded the school at Megara. And this same Bryson seems to have "stood in close relations of some kind with the Academy." (78) The argument itself is plainly an adaptation of Zeno's paradoxes of dichotomy. (79) Its contention is that the definition of an existence through its true or "Ideal" attributes, since it separates that existence into its being and its form, must relate each to a third form, thus giving rise to a further separation and the need of further definition *ad infinitum*. The assumption upon which the argument rests is that a definition does make a separation between what a thing is and what it is defined to be; that if a thing could be known, it must be known both for what it is and for what it is known to be. That is axiomatic in all these eristic perplexities. In the familiar dilemma, either Socrates and Socrates-whatever-he-is are distinct or identical; if the former, then the essential Socrates must be separate in himself from himself; if the latter, then the "being-Socrates" is identical with "what it is to be Socrates white-skinned and sitting," etc., etc.

The same assumption lies back of the more homely, if less subtle objection which Antisthenes is said to have made, that where Plato finds the idea of a horse, I find only a horse. But why should not some things, as Aristotle put it, be their essences from the start, since essence is substance? (80)

It has occurred not infrequently in the history of ideas that their development is shaped fully as much by the way problems are stated as by the way they are solved. (81) The answer to a "leading question," whatever it may be, short of a refusal to reply at all unless the question is stated differently, will necessarily share the assumptions on which the question is based. The manner in which the Eristics stated the problem of predication is a case in point. For having assumed that the terms, whose conjunction in a judgment is questioned, were completely explicit and extraneous to one another, it was then absurd to demand proof of their mutual implication. What was overlooked was that the meaning and attributes of a subject are *explicit* only because they must already be *implicit*. So when we are asked to discuss the problem of how it is possible that A is b, c, d, e, etc., (or how τὸ ἕν is τὰ πόλλα), we are forced either to contradict ourselves or accept the conclusion that b, c, d, e, are nothing. But if A had not *implied* them it would obviously not be true to affirm them of it; while if A does imply b, c, d, e, and if these are in some sense (essentially or accidentally) properties of A, what will the problem mean? Only that a new subject with a new set of implications has been surreptitiously introduced under the guise of the subject already defined or explicated. This sophistry had a considerable influence upon the subsequent development of logical speculation. Although its fallacies were sufficiently exposed, nevertheless the discussion was brought to some extent upon the ground of their assumptions, tending to regard the terms of discourse as fixed and exclusive entities rather than as ideal structure of a living and continuous process.

To sum up: the development of logical theory had by the second or third decade of the fourth century come to an apparent standstill. On the one side, an influential school of critics had pushed to an extreme what they evidently considered to be the logical implications of the Eleatic contention. Parmenides' unqualified rejection of non-Being had led them to the denial of significant negative predication, i.e. that the statement, A is not B, is equivalent to the complete denial of the existence of A, which is impossible. Furthermore, the mathematical paradoxes of Zeno had been elaborated in debate so as to cast doubt upon the possibility of any predication, negative or affirmative, since it involves the contradictions of identity and diversity, the assertion that One is other than it is, or is both single and multiple. On the other hand, since philosophical inquiry went on in other directions, unimpaired by these eristic puzzles, they might well have been ignored as useless vagaries. Whether or not the formulation of truth, by means of definitions reached in the process of dialectical reasoning, were possible without contradiction; whether or not what it revealed was a real diversity or an ultimate identity in nature, actually

such inquiries were being pursued successfully under the impulse of the Socratic teaching. But these puzzles had a certain vogue in intellectual circles, especially (so Plato tells us) among the Athenian youth. There are indications in the dialogues that Plato himself was not greatly impressed with them and did not regard them as insuperable barriers to human knowledge, after the fashion of Megaric and Cynic pretensions. Yet this metaphysical doubt and the specious logic on which it depended was inconsistent with all that the Platonic philosophy implied, and with the method and aim of the teaching in the Academy.

Chapter 3: ΨΥΧΗ and ΝΟΥΣ in the Platonic Canon.

THE philosophy of the Ideas is not a system, but a biography. It is a history of mind as it lives in human discourse and moves in the ideal possibilities of human life. To look for a deliberate account of mind as mind, or of soul as soul, in the pages of Plato is an idle task. For a thoroughly consistent dogma and terminology would entirely contravert the spirit of his dialectic. A lavish use of terms is the mark of a liberal thinker; a precise sifting of each phrase betrays the slave. (Theaet. 184 C) And as Professor Woodbridge remarks, "it is usually the play of ideas rather than the conclusion which absorbs him. So if we look for a system of philosophy in Plato, we shall probably not find it; but if we look for none, we may find most of the philosophies ever written." (82) If by comparison and study of scattered passages, however, we can suggest certain aspects of mind in the dialogues, it may help to make clear the logical theory in the PARMENIDES.

I.

SOUL AS MIND

According to a common interpretation of self-knowledge by modern critics, the Socratic maxim, Γνῶθι σεαυτόν, should mean, Become introspective. We are to suppose that Socrates first turned men's speculations from the "outer" world of nature to the "inner" world of consciousness. It is highly doubtful whether that intellectual gymnastic from which introspection is said to result could have been made even intelligible to ancient ways of thought. Assuming that Plato had understood the romantic preference for "subjective" analysis, the whole tenor of his philosophy indicates that this would have seemed to him the worst possible method for attaining wisdom. What could be more precarious than to seek truth in the mere occurrence of thinking rather than in its intention and result? Mind as a succession of impressions or a stream of consciousness, (still supposing him to have been able to understand what that means), he could only have regarded as soul entombed in the body. Not here, surely, is the beginning of wisdom. Self-knowledge is "to

know oneself, not as psychology or anthropology might describe a man, but to know, as the saying is, one's own mind." (83) And that is to be found not by looking in (to speak in modern terms), but by looking out. (84)

Plato speaks of the soul as one among the natural forces, wholly in and of this world, since it is indeed that which generates all life and motion and change (Cratylus 399, cf. Phaedo). When, therefore, he refers to an "inner" and an "outer" sphere, as he does occasionally, these phrases probably imply nothing more than that natural animism whereby a man's character and dispositions are distinguished from his body. If justice, for example, is concerned only with the inward man, ὡς ἀληθῶς περὶ ἑαυτὸν καὶ τὰ ἑαυτοῦ this is not because truth and virtue exist as mental states, but because one's chances of discovering the just life are slight until the "household" (οἰκεῖα) of his own soul is set in order. (85) Various metaphors illustrate the nature of this inwardness: advancement in learning is likened to nutrition, (Protag. 313 C, 314 B, Phaedrus 247 C); or it is ψυχῆς θεραπεία (Laches 185 E); something is thereby received into the soul itself (Protag. 314 B). Again, the soul is a soil in which the dialectician sows words, or a tablet on which they are inscribed (Phaedrus 276 E, 278 A). These passages are typical and they indicate how difficult it is, even by the most painfully literal interpretation, to find any subjective significance in Plato's references to the individual soul. (86) In short, wherever Plato has occasion to distinguish body as external existence from soul as internal, this distinction is either physiological (perhaps it were better to say, medical), or else ethical. It is never, so far as I have been able to determine, a distinction between a conscious subject and its objects. The sphere of the soul is private, but not privative; just as a man's home does not cease to be a part of the land when it becomes his own property.

It seems clear that the Forms, considered ἐν τῇ ψυχῇ, are not thereby to be transferred into a supernatural order of existence. On the contrary, they are more nearly akin to vital tendencies, since with reference to the soul they are principally possessed of a dynamic quality; so much so that they reveal themselves almost in the character of living persons. (87) The child that grows up having beauty, temperance, justice for companions becomes in so far beautiful, temperate, just in his soul (Republic 401 D). Engaged in fair and comely discourse, if he is not deficient and disharmonious κατὰ τὴν ψυχήν, fair Forms arise within him (Charm. 157 A). He and they are, as it were, cast in one mould (Republic 402 B), while those who are ignorant of the Forms, "and have no pattern (of Justice) clearly in mind" (μηδὲν ἐναργὲς ἐν τῇ ψυχῇ ἔχοντες παράδειγμα, ibid. 484 C), go about as though blind, unable to set in order either their own or anyone's else life. Here the emphasis is primarily ethical and normative. (88) It is hazardous, and perhaps inadvisable, to attempt to compress Plato's numerous utterances in this connection into a single formula. But we shall not be far from his meaning when we say that the Ideas "in the soul" are the continuous fulfilment in conduct of what is possible in existence, whether of the true, the good, or the beautiful. They

are not internal states, representative or regulative of external facts, but rather tendencies or dispositions whereby the individual soul is discovered to be in harmonious relationship with other natural existences. Thus, there is no essential difference, according to the Platonic psychology, between knowing the Forms and being in so far identified with them. In this sense, Being and Knowledge are convertible. When the soul knows the Form of beauty in beautiful sights or sounds, this means that the beauty in beautiful things and the beauty of the soul are to that extent one and the same. For this reason, philosophy persuades the soul (in its highest capacity as mind) "to trust in nothing else than herself, because she as herself alone understands true being alone" (Phaedo 83 B). (89)

The same conclusion is reached by another approach. According to the PHAEDRUS, REPUBLIC, and TIMAEUS, the soul is tripartite. Now if we suppose with Grote that Plato conceived of three separate souls, whenever it suited the purposes of the dialogue; or with Zeller that he meant three spatially distinct parts of the soul; it is impossible to reconcile the view of a tripartite soul with the explicit statements in the PHAEDO that the soul is simple and indivisible. Furthermore, in the PHAEDO desires are attributed to the body, in the PHILEBUS to the soul. Unless we are to convict Plato of quite unnecessary inconsistency, it seems reasonable to conclude, as does Archer-Hind (90), that *ψυχή* is conceived as a single vital principle and the three parts as separate modes of its operation. "Soul when it enters into union with matter is forced more or less to operate through matter; and the names given to this combined action of soul and matter are *θυμός* and *ἐπιθυμία*." (91) The modes of operation are temporal and transitory, and could be referred either to body or soul. But the vital principle itself, according to the familiar passage in PHAEDRUS 245 C, is immortal (92). What is this changeless and eternal soul? It is, in so far forth, just the Ideas themselves, or Being. This is shown by the argument for the preexistence of the soul, which is made to stand or fall with the preexistence of *οὐσία* (Phaedo 76 D-77 A) (93). The so-called doctrine of reminiscence has an important bearing on this point as teaching that knowledge is the presence of the Ideas in or among souls, and that in so far as a soul has knowledge, it shares the immortality of the Ideas (94). Knowledge of Being is equivalent to the Being of soul,—in other words, to soul as mind. Thus, what Archer-Hind has described as the "mode of operation" whereby soul or vital force is connected with non-Being (matter), can be applied to its connection with Being (mind). The *λογιστικὸν εἶδος*, or rational part of the soul, is precisely that "mode of operation" wherein the Forms are related to one another *αὐτὰ καθ' αὑτά*. The importance of this view for logical theory will appear more fully when we come to consider a passage in the PARMENIDES (95). It may be noted here that this interrelation of the Forms, which is the operation of the rational soul, is equivalent to the *κοινωνία* or community of Ideas (Sophist 252 B), in which is revealed the significant structure of Being.

It appears then that the soul, with respect to knowledge, is not for Plato an inner and exclusive sphere, but is completely at home in the order of nature; that the Ideas "in the soul," i.e. considered psychologically, are capacities for the harmonious and philosophic life as lived out and fulfilled in conduct; and that the rational soul, or Mind, is the operation of the life principle in this way, so that it becomes identical with Being,—the community of Ideas. A further point remains to be considered. Plato's account of predication, which is the principal concern of the PARMENIDES, demands at least a brief discussion of the relationship of the scattered particulars of sensation to the unitary Forms of mind. To begin with the *locus classicus* in Book VI of the Republic. The figure of the fourfold line is frequently taken to be a division of the universe of objects, on the one hand, from their corresponding mental states or faculties, on the other (96). Now previous to his description of the line, it will be recalled that in Book V Plato has already distinguished opinion from knowledge. Opinion is "about this" (ἐπ' ἄλλῳ ἄρα τέτακται δόξα), 477 B knowledge is "about that." (97) But knowledge has been shown to be ἐπὶ τὸ παντελῶς ὂν παντελῶς γνωστόν. About what then is opinion? Instead of stating what is the correlative to Being with which opinion is concerned, as we might expect were the discussion intended for a distinction in subject-matter and between classes of existences, Plato contents himself with the remark that this correlative cannot be non-Being, and then proceeds abruptly to consider the differences between knowledge and opinion as regards their respective function or power (δύναμις). Thus, opinion gets defined, not in terms of a new and distinct subject-matter, on the one hand, nor of a separate mental faculty, on the other, but solely in comparison with knowledge. And *because* it is intermediate (μεταξὺ) between knowledge and ignorance, it must be concerned with the intermediate flux between being and non-being. If the difference is primarily one of function or δυνάμεις, —(and notice that the latter is considered only with reference to its "sphere and result"), —we can accept Jackson's conclusion that the fourfold line is intended to illustrate two sorts of intellectual *method,* dialectic and ὑπόθεσις, whose "objects" are "the same existences viewed in one case indirectly, and in the other case directly." (98) The allegory of the cave, at the beginning of Book VII, is in this view a further illustration of the inferior method, whose result is opinion, and the superior method whose result is knowledge. The ratio in the lower half of the line between εἰκασία and πίστις corresponds to the difference between the objects and the shadows in a cave. But these are used merely as a visible analogy to the ratio between διάνοια and νόησις (or ἐπιστήμη), which is the real subject of the argument. Plato's primary purpose in these three passages is to distinguish, not between two separate orders of being, as a world of conceptual objects on the one hand and a world of sensible objects on the other, but between two different methods of acquiring knowledge of one and the same order of being. The differentia is degree of truth resulting from each,—the procedure of dialectic as against that of the

several sciences. Hence, a descending scale of intellectual methods, the inferior of which is defined only by impoverishment of the superior, instead of by the introduction of any new class of objects from below. Dialectic approaches most nearly to that comprehensive knowledge, or Being, which is pure substance,—the first principle, the Good. While the other method, of the geometrician, for example, is poorer: it attains to an understanding of the several subjects with which it deals, without knowing their related meanings within the system of Being as a whole. (99). In respect to uncritical beliefs, an analogous distinction holds: definite awareness, or noting, of objects exemplifies dialectical comprehension; "perception of shadows," confused awareness, dreaming, exemplifies the method of "hypothesis."

Once it is postulated that Plato assigns any cognitive function whatsoever to the senses, all the aforesaid questions about the "transcendence" or "immanence" of the Ideas press upon us. For it is necessary to suppose that there is one subject-matter *for* the senses (*τὰ αἰσθητα*) which is other than the subject-matter *for* thought (*τὰ νοήματα*). The problem is then to find out how Plato connects the two,—whether they are to be considered as separate, or as one subsisting in the other, etc. Such questions lose their point, however, when it is realised that sensation is never for Plato a mode of knowledge. The substance of mind is continuous, not split up into two radically discrete existences. In fact, Plato expressly rejects the suggestion that knowledge is perception, i.e. that it consists, as Aristippus taught, in "our modes of being affected." (Theaet. 184 C). All the objects of which knowledge consists, —universal being, the individual Forms or essences, and their various common relations (*τὰ κοινά*), —are revealed to the rational soul, and not the several senses. "Not in our affections is there knowledge, but in reasoning about them," (*Ἐν μὲν ἄρα τοῖς παθήμασιν οὐκ ἔνι ἐπιστήμη, ἐν δὲ τῷ περὶ ἐκείνων συλλογισμῷ*, Theaet 186 D). His brief accounts of the physiology of sensation show that he conceived it in terms of bodily movement, and not as a form of knowledge. "The most ancient Greek psychologists," says Beare, (100) "treated psychology as an integral part of physics or physiology . . . They never asked how it comes to pass that we 'project' our percepts in an extra-organic space, and fall into the habit of speaking of them as outside ourselves." So far as his description of the activity of the senses is concerned, especially in its contrast to the subject-object categories of modern psychology, these remarks are equally applicable to Plato. Probably, he based his account largely on the results of contemporary scientific researches into the anatomy and operations of the sense-organs, and his views seem to have been in fairly close agreement with those of the Empedoclean medical school. The *ἀπόρροιαι* of color and the *εἴδωλα* of things are shown to consist in an interaction between sense-organ and stimulus, such that the light emanating from the internal fire of the eye and the light approaching from without meet to produce vision (101). Hearing results from a shock of the air within the head, whose motion is then transmitted to the intellectual centres of the soul.

Taste arises from the presence of acidity,—a conception which was "far in advance of all Plato's predecessors, and more developed than that of Aristotle," anticipating as it did the modern chemical description of this sense. (102) In general, sensation is for Plato the instrument through which the individual soul or vital principle is brought into active relations with the rest of existence (103). "When that which is naturally mobile is impressed by even a slight affection, it spreads abroad the motion, the particles producing the same effect upon one another, until, coming ἐπὶ τὸ φρόνιμον, it announces the property of the agent; but a substance that is immobile is too stable to spread the motion round about, and thus it merely receives the affection but does not stir the neighboring part; so that as the particles do not pass one to another the original impulse which affected them, or transmit it to the entire creature, they leave the recipient of the affection without sensation." (104)

When Plato states that apart from Mind and its Forms there is no being, let us suppose that he means what he says, and does not propose to smuggle in another kind of being under the guise of phenomena. He is saying that Mind discovers itself within a flux or mixture of what is and what is not; that the definite system of being, which is knowledge, arises in the Unlimited, which is ignorance, or that the unity of Mind takes shape in the Indefinite Dyad of the great and small. Hence, as Zeller points out, "the TIMAEUS never speaks of the sensibly-perceptible as that *out of* which, but always as that *in which,* things have become." (105) Nor does it seem necessary to seek further a *Grundlage* for this generation of the Ideas,—as for instance, the corporeal matter that Zeller himself supposes. It is sufficient to say that the flux of Becoming consists of the reticulation of the Forms with one another. Or if some substrate be insisted upon, this surely could not have been conceived by Plato as "body" (in the later antithesis to "spirit"); it must rather have been the Good,—the natural teleology of life underlying all movement and change. The interrelation of these Forms, or types of order, is therefore a mixture of being and non-being, since in it they stand toward one another both for what they *are,* as definte essences, and for what they *are not,* with reference to one another. At the risk of needless repetition, let it be said that the problem here of the One and the Many is not for Plato the problem of relating a unitary *Begriff,* existing in the mind, to a manifold of sense-particulars, existing outside the mind. It is rather the same logical difficulty that Parmenides first discerned in the conflict between the Pythagorean and Ionian philosophies: how to reconcile the continuity, with the definitions of Being (106).

To sum up: Soul as mind (νοῦς or νόησις) is Being itself,—the systematic relations of all existence in the light of their ideal possibilities for human life, i.e. the Good. To say that the Ideas come to be in souls ἐγγίγνεσθαι ἐν ταῖς ψυχαῖς Charm. 157 A) is tantamount to saying that the soul has being and fulfils the ideal possibilities of existence; in other words, that the significance and purpose of nature are revealed in the attunement of the philosophic life. It is in this relationship that mind and truth are gener-

ated (107). Hence, it would involve a vicious circle to attempt to define the Ideas in terms of soul. The soul, on the other hand, can only be defined in terms of Being. The ἐν τῇ ψυχῇ γένη are but different degrees to which the types of Being are fulfilled: in sensation (αἴσθησις or εἰκοσία) there is a minimum of harmony and order, in mind a maximum, while opinion is the intermediate condition in which the Ideas are partially realised and the soul partakes of both Being and Non-Being. Plato's conception of mind is to be sought in the operation of the Ideas, rather than in the operations of the individual soul. For mind is not distinct from the universe of Ideas or essences, which alone has reality. Like the Νοῦς ποιητικός of Aristotle, it is the universal, timeless, and immortal dimension of existence.

II. MIND AS MEANING

In the Platonic psychology, the soul as mind is regarded either as a life fulfilling its moral, esthetic, and intellectual capacities, or as the typical relations of which Being itself consists,—the order and purpose of all existence. These alternative definitions will appear to conflict only if the category of consciousness be introduced and set over against the rest of existence, as something peculiar and immune. For a naturalistic view of soul, there need be no problem of reconciling the Ideas as human or moral powers with the Ideas as structure of reality. It is not a question as to the way in which, as forms of consciousness, they become also its objects, nor as to the way in which they can be introduced from a universe of things into a universe of thought. The system of connections that constitutes Being is, for Plato, a totality in which virtuous and wisdom-loving souls are an essential, but by no means the sole essential, element. The soul as mind is not a condition imposed upon existence, such that a mind in discovering, must likewise constitute the facts of its search. The generation of mind, or Being, *reveals* an order of which the purposes of life are a necessary content. When Plato asserts that the chief end of all inquiry is to distinguish between the good and the bad life, the statement carries more than a normative import. He bespeaks the fact that reflection discovers in all its subject-matter the relations between the ends and the conditions of human life. Mind is thus the meaning or virtue (ἀρετή) of all existence, and life, in the words of Plato's greatest disciple, is the realisation of mind.

Literal accuracy on this point is prevented by the lack of a strict and settled usage of terms. The suggestion of a technical vocabulary at the end of Book VI of the Republic, in the distinction of νοῦς and διάνοια, is not developed and maintained consistently elsewhere, and it is likely the specification is intended only for its immediate application. The following analysis, however, without pretending to be at all exhaustive, may indicate in a general way what it is to which νοῦς and its cognate terms (108) are customarily made to refer. So far as it has been possible to infer from the various connections in which the terms occur, the chief aspects of mind may be classified roughly as (1) credence, (2) reflection, (3) intention or signification.

a). reasoned opinion, (more positive than δόξα:)

Cratylus accuses Hermogenes of holding some notion about the nature of names which he will not divulge (ἐν ἑαυτῷ διανοεῖσθαι Crat. 384 A); must Socrates depart, keeping this thought in mind, but unexpressed (ἐν νῷ ? Phaedo 63 D); I am said to be mad because I have these notions about myself and you (Sympos. 173 E).

b). content of belief:

Frequently an interlocutor is asked to explain what it is he really means or believes (τί ποτε νοεῖ Laches 194 B, 196 C, Gorgias 521 A, Euthyphro 11 B. cf. Protag. 341 E, Gorgias 455 B, etc.)

(1). Credence: e. g. to "have in mind" to be "reminded" of something, to speak one's "mind," etc.

a). suggestion of meaning: something came to my mind while you were speaking (τόδε , . . ἐνενόησα Euthyph. 9 C, cf. Phaedr. 235 C, Phaedo. 60 C, Crat. 411 B); whenever one speaks the name of iron or silver, do we not all think of (mean) the same thing? (τὸ αὐτὸ πάντες διενοήθημεν Phaedr. 263 A).

(2). Reflection: these passages refer more specifically to intellectual *activity.*

b). consideration of meaning: after reflecting, Zeus said . . . (Sympos. 190 B, cf. ib. 200 C, 210 B, Meno 84 A, Apol. 40 C, Gorg. 458 B, Laws VI, 783 E).

Socrates asks Crito what he *plans* to do (τί ἐν νῳ ἔχεις ποιεῖν Crito 50 A, cf. ib. 52 A, Gorg. 504 D, Phaedo 60 D).

Are not thought (διάνοια) and speech (λόγος) the same, except that what is called thought is the voiceless conversation of the soul with herself, while the stream from the soul which flows through the mouth and is audible is called speech? (Soph.263E); the blunt veteran, Laches, admits that, while he knows the nature of courage, he is unable to put his meaning into words (ἃ νοῶ μὴ οἷός τ' εἰμὶ ἰεπεῖν Lach. 194 B); Socrates twitting Critias about his definition of temperance remarks to Charmides, He must have meant (ἐνόει) one thing and said another. (Charm. 161).

(3). Intention, or signification: in this sense, the terms connote purpose and aim, or are used to differentiate

What might the word "demons" *mean?* (τί ἄν ποτε νοοῖ τὸ ὄνομα οἱ "δαίμονες;" Crat. 397 E, cf. 416 A); those legislators who named the soul *meant,* . . . etc. (Crat. 399 D, cf 402 B).

Dionysodorus catches up Socrates for implying that

words from their import, hence interchangeable either with "project, "plan" (βουλή) or with "possibility" (δύναμις). There resides in all these allied terms for "mind," that natural ambiguity (if it can be called such) that is rendered by our verb "to mean": e. g. this thing, these words, or Socrates, "thinks," or "means" so-and-so. It is this that gives point to the punning jest of Dionysodorus.

speech can mean anything. "Is it the animate or inanimate that mean what they mean?" (Πότερον οὖν ψυχὴν ἔχοντα νοεῖ τὰ νοούντα, ἢ καὶ τὰ ἄψυχα;) "The animate." "Well, are you aware of any statement that is alive?" "No." "Then, why did you ask me just now what my statement meant?"

The true meaning (διάνοια) of a name is independent of changes in letters or syllables (Crat. 418 A, C). It is equivalent to the Form which the name denotes, i.e. the substance of some fact (ἡ οὐσία τοῦ πράγματος, Crat. 393 D). As in the case of its presence in souls, the Form appears as a power or capacity, so here in connection with names it is ἡ τοῦ ὀνόματος δύναμις (394 B, cf. Gorgias 455D, "the whole δύναμις of rhetoric"). Men "do not understand the δύναμις of Eros", i.e. what he is good for, what he means, (Sympos. 189 C).

Sometimes the Form is explicitly identified with the end or use of things. Here a favorite illustration is taken from the arts. The art of the physician, bridle-maker, charioteer, flute-player, etc.—what makes each what it is, is the realisation of what is intended by its expert. Each of the arts is different because it has a different δύναμις (Rep. I, 346 A). The use (ἔργον) of a horse, an eye, an ear, a knife, a chisel, pruning-hook, is what each accomplishes best, its peculiar excellence (ἀρετή). That appears to exhaust its meaning (Rep. I, 352D-353). "I maintain that the definition of the things that are, in their essence, is nothing else than power" (τίθεμαι γὰρ ὅρον [ὁρίζειν] τὰ ὄντα ὡς ἔστιν οὐκ ἄλλο τι πλὴν δύναμις, Soph. 247 E). In the case of the soul, its "business is to plan and direct these other meanings" (whether for better or worse) (Rep. I, 353).

The reality of things is what they signify, as the lyre, although it has been laid aside, with mute strings, suggests to those who know and grasp its meaning (ἐν τῇ διανοίᾳ λαβόν), the fair presence of its boy-player. (Phaedo 73 D).

A theme that runs through the philosophy of the Ideas, from beginning to end, is that Being or reality is a "universe of discourse," characterized wholly by significant structure. All existence tends, or *loves*, to be fulfilled in certain types of order, ideal systems of connection which come to be in and

through the "fair judgments" of philosophic souls. According to the famous parable of creation in the TIMAEUS, the divine Reason, finding all that was visible to be chaotic and *desiring* it to be as good as possible, brought it from disorder into order; and to this end, he put mind in soul and soul in body, so that the cosmos became alive with soul and with meaning, (*ζῷον ἔμψυχον ἔννουν*). In other words, dialectic is depicted, in a mythus (cf. 29 D, 30 B), as the universal structure and process of reality. Now a problem to which Plato devotes increasing attention in the course of his later writings is the location of false meaning with reference to the reality of mind. In what way this had become involved in the Eleatic difficulties of non-being has already been described. It seems to have been a fashionable problem of the day in intellectual circles (109). But Plato's handling of the problem is peculiar to his own fundamental view of dialectic. In the first place, he deems it futile to discuss it in connection with the flux of sensation, which is notoriously deceptive. No light is thrown on the question of non-being by the Protagorean doctrine that knowledge is perception, or by the similar view of Aristippus that it consists in our modes of being affected. Nor is there any advantage to be gained by playing up the apparent contrarieties of particulars, after the fashion of the Cynic school. From the one there results the absurd view that opposite assertions are true of one and the same existence; from the other, a useless doubt as to the validity of scientific inquiry and an opinion that truth is unattainable. Rightly considered, the problem concerns the logical, rather than the physical, aspect of existence. If Being, or knowledge, is nothing else than the meaning of all existence; if the universe is a universe of discourse, without real residuum; and if all things are and come to be only as implying certain systems of relation or Forms: it follows that knowledge of the principles of discourse itself is involved in all other science. The way of escape from the Eleatic perplexities of Being and Non-Being will be found in this new discipline, and Zeno's famous antinomies will be found to imply the truth that all items of science, however various their subject-matter, conform to a universal structure of reason. Thus, the systematic elaboration of the meaning of any existence into its proper attributes is but the production of certainty. It is the individuation of logical structure within the sentences of discourse.

Chapter 4. The Parmenides: I. Antinomies of Predication (127E-132 B)

ROM his view of mind as a universe of discourse or community of Ideas, discussed in the preceding chapter, Plato's attitude toward the Megaric and Cynic disputations might now be inferred with some assurance, even were no further indications of it supplied in the dialogues. Both of these Socratic factions had seized upon the weapons of Zeno, with slight regard for their original purpose, in order to defend two extremes in logical theory. Antisthenes and his followers sought to turn dialectic against itself by exposing the contradictions implicit in its fundamental form,—the rational judgment. But while their chief interest lay in asserting the exclusive reality of particular existences, they were dialecticians in spite of themselves. They invoked the principles of argumentation in the very act of denying them. The older school of Euclides, on the contrary, employed dialectic as a means of transcending it and attaining to a mystical unity of being that should admit of no definition except in terms of its own identity. Now Plato, as we have seen, was teaching that knowledge is being and that the reality of sensible particulars consists in their intelligible meanings which dialectic alone can disclose. The play of ideas in philosophic discourse is at once its own justification and reward. Therefore, we should expect to find him maintaining the validity of definition against the Cynic, and its implicit plurality against the Megaric.

The result is a three-cornered situation, which is described by Plato in the Sophist. The philosophy of the Ideas found itself occupying a middle ground opposite two contending theories of Being. At the one extreme stood the corporealists, shameless "children of the dragon's teeth," and with them, though more amenable to reason, the Cynics. "They make no distinction between being and body, and if an opponent asserts that anything incorporeal has being they laugh him to scorn and are loath to hear him out." (Sophist 246 B). Doubtless, Plato's realistic doctrine of essences did not in their eyes sufficiently "save the appearances." At the other extreme were the partisans of the Whole, denying motion and power, and claiming that "Being stands,

sacred and solemn, and devoid of life or thought, in unmeaning, unchanging fixity." (Sophist 248 E). From their standpoint, the definition of Being within its several Forms would appear to concede too much to common sense notions of multiciplicity, with its contradictions of identity and diversity. To all who taught that Being is manifold and consists of elements, atoms, numbers, or sensations, Plato was saying that reality is discovered solely in the permanent identities of mind. To eristics from Megara, on the other hand, he was saying with almost equal emphasis that the active interrelation of these self-identical essences in and through rational discourse exhibits a real diversity; that Being is both one and many, same and different. (110)

Evidently, Plato had no respect for the logical subtleties and pitfalls that had been taxing the ingenuity of successive thinkers for half a century and more, since Zeno had first propounded his puzzles for pluralists. (111) But it is a mistake to infer from his humorous references to them that he deemed them unworthy of serious consideration; or that, because he has ridiculed eristic in the EUTHYDEMUS, he must be presenting a similar travesty in the PARMENIDES. There is a genuine difficulty at the root of these puzzles, but it had been somewhat maliciously obscured. The Socratics had "first raised a dust and then complained they could not see." So Plato introduces Zeno, the original author of paralogism, who disclaims any intention to deceive the world into supposing there is a recondite meaning concealed in his arguments. On the contrary, the motive that led to their composition was not a young man's love of combat, but an older man's love of fame. They were written, says he, in a comic vein, merely as a *tu quoque* reply to those who jested at absurdities in his master's philosophy. He had demonstrated that the assumption of plurality involved equal absurdities; if existence (τὰ ὄντα) is a manifold, it can be shown to be at once identical and different. Misunderstanding arose through the accident that, his original manuscript having been stolen, his arguments were published without proper introduction (128 C, D). (112)

Now Parmenides twice commends Socrates for his interest in definitions (113), and it is made clear from the start that the real problem which Zeno had broached refers to the plurality of the Ideas, and not to the multiplicity of sensible phenomena. Nothing is to be gained by discussing their conflicting properties, says Socrates, for the statement that opposite affections are mingled in the flux of becoming is a truism. The only valid question is whether or not the Forms αὐτα καθ' αὑτά are also subject to these contradictions. Does diversity point to an ineluctable conflict in discourse, such that the comprehension of the many sensibles within their several common essences in mind is but the substitution of one disorder for another?

The Eleatic contention cuts across the philosophy of the Ideas at its doctrine of participation. Every definition discovers the presence of a single Form, or Ideal attribute, in this or that subject. Conversely, each subject of discourse, or definiend, is such by virtue of its participation in several Forms. It

is determined by its location within a system of related meanings. But this systematic relationship implies differences, which in turn imply negation or non-being, coexistent with the affirmation of being. As one of the most Platonic of modern logicians has put it, "significant negation . . . is intelligible within and with reference to a system judged to be actual. . . . . Reality is a system, and you cannot have system apart from negation." (114) Socrates is curious to know whether Zeno's puzzles could be applied to the predicated Ideas themselves, so as to show that they too must be both what they are and what they are not. If their essential meanings are involved in the same self-contradiction that can easily be demonstrated with regard to visible existences, there is indeed cause for amazement (129). Now the examples selected for the inquiry are not the Forms usually encountered in the dialogues —Temperance, Justice, Beauty, and the like,—but those denoting abstract relations in the structure of discourse itself: the kinds (γένη) of opposition, Being and Non-Being, Same and Different, Rest and Motion. Thus the search is directly restricted to the logical bearings of the Eleatic contention, i.e. to the principles or categories of predication. Whatever follows for these more abstract types of relation must follow, *a fortiori,* for the more concrete.

Socrates is said to have engaged in this discussion with Parmenides and Zeno, while he was "still quite young." Who is represented in the person of this inquiring novice? Or rather, since Plato's intentions are scarcely historical, what is the part that Socrates is supposed to play in the ensuing discussion and for what views does he stand sponsor? This question has occasioned no little speculation on the part of commentators, and with good reason. It has been objected that to exhibit the real Socrates worsted in argument at the hands even of the venerable Parmenides is a mark of disrespect scarcely in keeping with Plato's attitude toward his master. Then, too, Socrates is made to discuss a philosophy of Ideas with which, according to the testimony of Aristotle, he was entirely unacquainted. Again it is strange to find the man who was always "talking about asses and smiths and cobblers and curriers" (Symposium 221 E), so decorous and reluctant to admit the homelier existences within the Forms of science (Parmenides 130 C) (115). Various characters have been suggested: Plato in his youth, before his own views had ripened; or Plato in the mature development of his doctrines; or Aristotle as student and critic in the Academy; or some callow exponent of Plato's philosophy, who has failed to grasp its real import. The most plausible hypothesis, however, is that the position of the young Socrates in this discussion is meant to represent the position of the young Socratics, i.e. Antisthenes and his school (116). In support of this interpretation, consider the qualified approval of Socrates' leaning toward definitions, with the intimation that he has made only a beginning in the right direction; and the statement (by Parmenides) that he still wants training in the kind of dialectical arguments of which Zeno has given him an example. Moreover, his hesitation in allowing Ideas of contemptible things is quite in keeping with what we know of Antisthenes' criti-

cism of dialectic (117). The objects to which Socrates is so reluctant to assign the status of Ideas are all concrete existences,—human individuals, fire, water, hair, mud, etc.,—and not the significant attributes of existence, such as the just, the beautiful, and the good. From the Cynic standpoint, it were stilted nonsense to attach eternal patterns to the former. But since definition is supposed to be the participation of many existences in a single Form, a Cynic might well "run away" from dialectic when it attempted to include more than the moral and esthetic within its ken. Such philosophical defection, as the sequel proves, would not be due to the limitations of dialectic but to an insufficient understanding of its nature.

However, the person of "Socrates" is entirely secondary to the discussion in which he is engaged. Conjectures about his character depend upon the interpretations placed on the doctrine of participation examined here. For this doctrine differs considerably from the customary account of the previous dialogues. The word χωρίς, repeatedly used to contrast the Form with its particulars, gives us the clue to its meaning (118). The aporiae of the first part all hinge upon the assumption that the Forms exist *apart from* the many things which are said to participate in them. Who is to be made sponsor for this "hypostasis"? By all reports, it is excluded from the teaching of Socrates. There is small room for doubting that his definitions grew out of the specific instances that he accumulated and that he did not regard their common meaning, thus defined, (τοὺς ἐπακτικοὺς λόγους), as independent of them. There are suggestions of such a status of the Forms in Plato's mythical descriptions; but there are many more passages throughout his writings which point to the contrary conception. (119) The question has already been discussed at some length (120), and if our account of mind as meaning in Plato's philosophy be allowed to stand, we shall have to seek elsewhere the source of the present "separation" of Ideas and existences. A careful and unbiassed reading of the dialogue will convince one, I believe, that the emphasis responsible for the following aporiae is not found in the preliminary statement of the problem by Socrates, but in Parmenides' version of that statement. The former, as we have seen, amounts to a request that the perplexities of identity and difference be examined with reference to logical, rather than physical, connections. It is Parmenides who interprets this to mean, not only a distinction, but (as the argument goes on to prove) an existential separation between the Forms themselves and their manifold implication in the flux of becoming (Parmenides 130 B).

For these reasons, the earlier part of the dialogue, at least, lends itself best to Zeller's theory that the purpose of the antinomies is "indirectly to establish the right view of the Ideas by the destruction of the false view" (121). More specifically, the interpretation offered here is as follows: Plato is examining the objections of rival Socratics to his doctrine of participation; having first ruled out, as too trivial for discussion, the application of Zeno's antinomies to visible existences, he wants to show that the apparent contradiction they reveal

in the relation of the Ideas to their subject-matter depends upon a misunderstanding of the nature of definition; therefore, he brings Socrates and Parmenides together and has them begin the discussion of Participation (or predication), upon the false assumption that the one Form and its many particulars are separate, explicit entities conjoined in the definition; and thus Parmenides is able to exhibit the paralogisms of which Plato's dialectic was being accused. To a generation acquainted with the disputes about being and non-being, one and many, that raged in and around the Academy (122), there was perhaps no little humor in this well-aimed thrust. Even Socrates himself is somewhat non-plussed by these eristic difficulties when a definition is taken in the sense imposed upon it by his professed followers; so that it devolves upon the still more revered person of Parmenides, father of dialectic, to extricate the matter from the confusion into which it has been thrown by an improper use of the Eleatic contention. With this appeal *ad vericundiam* and after indicating the source of the dispute between himself and the Megarics, Plato brings the problem of participation over into a subject-matter more favorable to constructive inquiry than that of the eristic puzzles, taken by themselves.

In all this search, however, no doubt is entertained as to the possibility of there being Ideas; no attempt is made, either by Socrates or Parmenides, to settle any theory of knowledge at large. It is true that the implication of an Idea in its subject-matter is analysed, and the complete accessibility of the formal essences to human understanding is questioned. But all this concerns the success and accuracy of dialectical method in pursuit of its specific objects, not the possibility or nature of a relation between objects and knowledge, *ueberhaupt*. In other words, the procedure is logical rather than epistemological. Hence, it is misleading to say with Hegel, as many commentators do, "dieser Dialog ist eigentlich die reine Ideenlehre Platons" (123). It has been suggested above that Plato had no "doctrine of Ideas," in the sense in which the term is used by modern critics, and that mind as meaning is regarded by him as primary and irreducible. Any proposed definition of mind *per se* must of necessity be circular. Nevertheless, almost all of the interpretations of the PARMENIDES during the last century have started with the presumption that Plato is attacking or defending some Theory of Knowledge; although they would be at a loss to point out any more fundamental category here with reference to which such a dispute is to be decided. The dialogue is "concerning the Ideas," but not concerning a *theory of* Ideas. (124) An inquiry into the mode in which the Forms of mind are implicated in propositions need involve no theory, old or new, of what constitutes mind itself. Presumably, the intention is here, as elsewhere, to elucidate the operation of mind in one of its several aspects. That there are Ideas to discuss is taken to be self-evident, just as any artist or scientist accepts the presence of his subject, without first inquiring how subject-matter as such is possible.

Now, as to the antinomies themselves: we have said that they seem to depend upon the view that a definition combines formal essence and particular subject-

matter as two separate and explicit entities. Aristotle tells us that Plato posited three kinds of substance,—the Forms, objects of mathematics, and sensible existences (125), and the statement is borne out by the present analysis. It is clear that Plato had this threefold distinction before him and used it as a scheme for the logical inquiries here described, for not only does he follow it consistently in the examination of each of the later "hypotheses", but it supplies the arrangement for the series of antinomies we are about to consider (Parmenides 131-132 A). The question is whether, as the Socratic definition implies, "the others" can be thought to participate in one Idea without absurdity, or not. (1). Is the Form, as a whole, in each of its several parts, like daylight in many places at once (homogeneous), or a sail spread over a number of men (heterogeneous) ? Objection: Either this totality is present as a unit in each of the several parts, so that there are as many units as parts; or it is dispersed among the parts severally, so that each possesses, not the whole, but a part of the Form. In either event its unity is destroyed. (2). Is it true that the Form is divisible by us, although it still remains *unum numero?* The supposition here is that the Form is a single class which is mathematically divisible into individual segments. Objection: Division of a class involves quantitative considerations, since the individual, being contained within it, must be less than the class, and the class greater than the individual (126). The whole class, then, may be considered as a positive quantity (τὸ μέγεθος) Hence, each individual participant is also a positive quantity; but it is at the same time a negative quantity (τὸ σμικρὸν), since it is *less* than the magnitude in which it participates. Analogous difficulties follow from the assumption that the whole is *equal* to its parts, since the equality of the *several* parts will also be a negative quantity (i.e. each part will be *equal* to the whole *minus* the remaining parts?) ; and from the assumption that each part is *less* than the whole class, since addition of negative quantities gives less, not more, and thus the whole is less than the sum of its parts, which is absurd (127). (3). Are there many things whose comparison leads to belief in a single Idea over and above them all? Objection: The difficulty of the Third Man will apply. Supposing that all parts of an aggregate do reveal the one quality of magnitude, this must be different from the magnitude of each individual part, since it comprehends them all. It becomes necessary then to invent a third Idea, over and above the individual and general magnitudes, by which their relation to one another can be explained; whereupon, the relation of this third Idea to the two preceding requires still another and more comprehensive Idea, and so on *ad infinitum.*

It is likely that these antinomies were an old story at the time Plato wrote and required scarcely more than a passing mention. Moreover, if he regarded them as directed against a view of definition that was alien to his own philosophy, detailed discussion of them was superfluous. Obviously, what was needed was an analysis of definition so as to formulate the nature of participation as he understood it, in order to show the extent to which it fitted the conditions and escaped the perplexities. The force of the antinomies just con-

sidered derives from an assumption that a Form, although discovered in its subject-matter, is essentially separate from it. This is indicated pretty clearly at the beginning of the discussion, and is supported both by the later analysis of predication and by the character of other eristic arguments that have been preserved (128). According to Plato, every fact or subject of definition reveals in its essence a plurality of meanings which are permanent in the structure of mind. If, however, these several meanings, or types of order, are construed as themselves separate facts (χωρίς), whose essence as such demands further logical analysis, intellectual confusion is unavoidable. Because when one considers the true and complete definition of a fact as itself a further fact to be defined, he is involved either in a vicious circle or an infinite regress. The only escape will seem to lie in Cynic doubt as to the adequacy or definition, or else in the Eleatic conclusion that a single definition fits all facts alike; in other words, that there are no real distinctions, but all existence is one and the same.

In fine, this false view of definition was due to the confusion of the meaning of a term in intension with its meaning in extension (129). The Form is regarded as being itself one of the particulars which it comprehends; so that its relation to "the others" presents the puzzles of which the "third man" is typical. A good illustration can be found in the nature of a curve, for mathematics (130). Its equation is certainly not identical with the locus in which the points of any given curve happen to lie, for it does not exist as a curved line at all. Nevertheless, it denotes every actual or possible curve so traced as to satisfy this equation, and stands as the type of systematic relation which such curves approach but never completely fulfil. The reason of this shortcoming is that the latter are, in Platonic language, "mixtures"; that is to say, every particular curved line is found to imply other orders of connection besides that one which its equation expresses. An easy mistake would be to suppose that the one meaning, thus extended into its many instances and implicated with a diversity of other meanings, is separate from its "appearances"; as one might doubt the identity of the same actor appearing in many roles. So, if the equation be taken for one fact and its extension to the many "imperfect" instances for other facts, the familiar problem of Humpty-Dumpty is created, viz. how to get the two connected again in a single definition. That such a confusion might be due to a verbal difficulty rather than to any conditions inherent in the principles of definition itself would not lessen the perplexity. Any formulation of those principles invites misunderstanding and Plato's description of them as participation (μέθεξις) was certainly no exception.

In the opinion of Aristotle, this "separation" is the chief source of all the difficulties regarding the Ideas. His comments would afford the strongest confirmation of the present interpretation were it not for the impression that he is advancing them as valid objections to Plato's philosophy. Thus, in place of assistance, Aristotle appears to provide one of the hardest obstacles to an understanding of the dialogue. We find him repeating the same arguments

against participation without the slightest mention of their having been discussed by Plato himself (131). Twice at least he employs the difficulty of the Third Man which plays such a prominent part in the PARMENIDES (132), yet nowhere does he so much as allude to this dialogue. Two ways of accounting for this omission have been proposed. First, Aristotle may have misunderstood his master's teaching and, being unacquainted with the PARMENIDES, have advanced objections against the philosophy of the Ideas with which Plato had already dealt fully. But it seems almost incredible that one of Aristotle's intellect should have so failed to comprehend a doctrine, after twenty years' instruction. It has been maintained that an aversion to mathematics would partly account for this misunderstanding, since Plato's Ideas are not mutilated and abstract universals, as Aristotle seems to suppose, but "the pure essences of the mathematician" (133). Yet there is evidence that Aristotle was by no means so deficient in the subject of number (134). The second supposition is that Aristotle's criticisms were quite relevant and displayed genuine contradictions in Plato's philosophy. This shifts the problem to the PARMENIDES: why then did Plato, by employing the same arguments, take occasion to refute his own doctrines? (1). Some have questioned the authenticity of the dialogue on this score, considering it a post-Aristotelian writing and due to Peripatetic criticism. (2). On the theory of a later development in Plato's thought, it is supposed that the PARMENIDES represents a period of transition when the doctrine of a participation of things in the Ideas was being abandoned; hence, the insuperable objections, which Aristotle advances against the earlier doctrine, were also considered by Plato, while his mind was "in a ferment" (135). However, if Aristotle was attacking an abandoned position, he gives no sign that he was aware of the fact; and ignorance of so important a revision of his master's views is hard to explain, even by Aristotle's absence from the Academy (136). (3). It has been suggested that Plato recognised fully the destructive consequences of these arguments in his own philosophy, but intellectual honesty and pure love of dialectic compelled him to develop them nevertheless; Aristotle then used the inconsistencies thus exposed as grounds for his rejection of Platonism (137).

The two alternative suppositions, viz. that Aristotle misunderstood his master's philosophy and unwittingly repeated arguments that had already been answered, or that his criticism was intended for and relevant to Plato's own doctrine of predication, do not exhaust the possibilities. There is a third alternative, which will account for the circumstance that both thinkers should have produced the same objections, as well as for Aristotle's neglect to acknowledge the previous discussion in the PARMENIDES. It is conceivable that these antinomies of predication arise from a false notion of definition, which both Plato and Aristotle impugned. Possibly, or even probably, the difficulty of the Third Man and like puzzles had been thrashed out in the Academy and was thoroughly familiar long before Aristotle delivered his strictures on Platonism; and that neither its earlier citation in the PARMENIDES nor the

later references to it in the Metaphysics purported to be original statements of the difficulty, but that each epitomised an issue of long standing in the discussions and investigations carried on within the walls of the Academy. In other words, Aristotle may have reviewed and strengthened certain objections to a growing tendency in contemporary Platonism, which Plato himself had long since discerned and criticised with his classes.

Briefly, Aristotle's version of the philosophy of the Ideas runs as follows (138): (1). Plato taught that there are two "elements" or first principles in all existence,—the One, and Being which is the Great-and-Small. By participation of the latter in the One (substance) come the Forms; for definition is not of sensible things, which are always changing, but of their Ideas or Forms. Thus, for Plato, the formal principle or cause is the One, while the material is the indefinite dyad of the Great-and-Small, out of which the infinite multiplicity of existence is generated (Met. A.6.). (2). According to Plato, there are three kinds of οὐσίαι, —the substance of the Forms, the substance of sensible bodies, and an intermediate substance of mathematical objects (Met.Z.2.1028b. 2c;A.6.987b,30; De Anima 1.2.404b,33). (3). The Ideas are "separate" from the sensible particulars that are named after them. But they are for things the causes both of being and becoming, and there are as many Ideas as there are natural (not artificial) objects (Met.A.6; A.9, 991b,2; 992a,28; I.2.1053b,21). (4). Although Plato did not exactly describe the nature of participation, he held that, since all things are in perpetual flux, their sole reality comes through their participation in the Ideas (Met. A.6; M.9.1086a,35; H.6.1045b,8; Λ.10.1075b,34). The chief burden of Aristotle's criticism bears on this last point. If the Ideas, as the Platonists maintain, are separate from things, then they can account for no natural existence and are an entirely superfluous assumption. Moreover, it is difficult to understand, in this case, what "sharing" or "participation" could mean. All of the objections regarding the Ideas are owing to this false separation of the universal forms, on which knowledge depends, from the particular things with which they are actually identified (Met.M.9.1086a,35).

This same mistaken dualism of the Forms and their material is, so we have supposed, at the root of the similar objections to participation presented in the PARMENIDES. But it would be hard to justify this interpretation were it true that Aristotle's criticism is primarily directed against Plato himself. As a matter of fact, he is seldom connected, by name at least, with the doctrines combatted. It is "we Platonists" who have made the Ideas, as universal substances, into independent and different entities outside of natural objects: who, according to the criticism in Metaphysics B and Z, have conceived the Form to be a sort of "eternalised sensible," not only one in kind, as it is, but "one in number," or quantitatively determinate; and who have supposed the two principles, One and Being, to be both general and particular, which is impossible. I am not saying that Aristotle expressly contrasts the doctrine of the Platonists with that of their master, but only that the *immediate* object of his criticism

seems to have been the former rather than the latter; that he is concerned more with contemporary tendencies and their correction than with the detailed criticism of a previous philosopher. Where Plato is included by name, the objections refer either to his theory of number and the production of other mathematical entities (Met.A.8.990a,30; A.9.992a,20); or to the view, which he is said to have shared with the Pythagoreans, that unity and being are the ultimate substance of existing things (Met.B.996a,6; B.1001a,9), instead of the attributes or predicates of a single substratum, as Aristotle himself maintained (Met.I.2.1053b,13sq.). It would, of course, be unreasonable to argue from this that Aristotle intended to exempt Plato entirely from his other criticisms of the philosophy of the Ideas. The points just mentioned are closely connected with the doctrine of a "separation" which is, for Aristotle, the main difficulty in Platonism. Furthermore, we have it stated explicitly that, in Plato's opinion, sensible things are apart from the Ideas (Met.A.6.987b,7) and, conversely, the Ideas are "definite natures and substances separate from other things" (Met.I.2.1053b,21). But nowhere do we find Plato made direct sponsor for the kind of separation which Aristotle is especially anxious to deny, —the theory that the Forms, besides being the universals of knowledge, are individual existences *outside of* facts, although completely analogous to them; in the which separate entities, things must nevertheless mysteriously participate, and which after some inexplicable fashion are at once their own pattern and copy. For it is quite conceivable that the doctrine of a separation which Aristotle correctly assigns to Plato, is not the same which he demolishes in the Metaphysics. And if the latter was a gross perversion of Plato's philosophy and due to an over-literal interpretation, which he had already criticised at its inception, then, in effect, Aristotle is here upholding Plato against Platonism.

Unquestionably, a "separation," in a very definite sense of the word, between the multiplicity of things and the unity of their respective meanings, is indicated by a score of passages in the PHAEDRUS, REPUBLIC, PHAEDO, and elsewhere. There is no doubt of Plato's emphatic distinction between the many existences that are seen but not as objects of knowledge, and their single Form that is known but not as an object of sight. Nevertheless, this separation, distinction, difference, or whatever one calls it, is not a separation, as of two orders of fact, but as of two distinct ways of dealing with the same facts. (139) In other words, Plato's account of mind affirms its continuity no less than its determinations; it depicts the distinctive and permanent essence of the Ideas, as well as their subsistence as limiting forms in the unlimited. He does not tell us exactly how this One-in-Many is to be "explained" in an ultimate or absolute sense, deeming it a sheer waste of words to dispute the relation of Unity at large to Diversity at large. (Philebus 17A, 18A).

Plato employs only two causes, says Aristotle,—the formal and the material: the essence of things is caused by the Ideas, the essence of the Ideas by the One, while the subject-matter of the Ideas in the case of things, or of the One in the case of Ideas, is the Indefinite Dyad (Met.A.6.998a,10). Now the

relation of these two causes is plainly what Plato means by "participation," whose nature in Aristotle's opinion was never made sufficiently clear. Judging by the confusion under which Plato's successors in the Academy seem to have labored, it was the metaphysical aspect of the doctrine that required further analysis,—the relation of the Form to its matter as a first principle. For the most part, Plato was not interested in the question from that standpoint. Usually, his doctrine of participation occupies a more logical than metaphysical context; or rather, it is logic as metaphysics. All existence is diverse and changing; that is evident. In this perpetual flux, dialectic reveals the unity; that is less evident, but undeniable when once it has been achieved through definition. The participation of many in one is a matter of discourse. And our chief need is to learn how to avoid both the overhasty and the overcautious inference (*κατανοεῖν*) from one Form to its unlimited differences, or the reverse, seeking instead the specific order in which the several parts are successively arranged in the whole (Philebus 18 A sq.). This, above all, is what we want to know about participation, and this the kind of inquiry that is of the first real importance. And since Plato regarded the material causes and conditions of things as less important than their formal structure in discourse, he devoted little attention to that aspect of participation, leaving the ultimate relation between formal and material causes undecided. In his view, matters of necessity and becoming are subordinate to the being and structure of mind. Their elucidation, after all, has to wait upon logical considerations. When, however, Plato does discuss the realm of necessity, there is no intimation that phenomena contain some further reality apart from their meaning, or that the Forms are endowed with another content of existence beside that which they denote. In the TIMAEUS, the process of creation reduces to a generation of Limit or measurable meaning from what is totally indefinite and chaotic. One gathers that the fluctuating and temporal appearance is but a segment in fact of what is complete in Idea; an inception (rather than a manifestation) of its final and perfect nature. "Phenomenon" still retains its original sense of "what is appearing,"—more nearly akin to the modern notion of a process as contrasted with its total meaning, than to that of something sensibly apprehended, but *through* which, as through a visible screen, the noumenon is manifested. Appearances are the incomplete, the uncertain, the not as yet individuated or definable configurations of reality. We ought not to speak of them as though they were "this" or "that" (*τοῦτο* or *τόδε*), but as merely "such" (*τὸ τοιοῦτον*). In the process of necessity there is properly no individuation, no certainty, unless we except the totality itself,—"the nature which receives all bodies" (Timaeus 49 D-50 B). Substitute undifferentiated Matter for the Indefinite Dyad, and this doctrine implies, with respect to the nature of participation, something very similar to Aristotle's formula for the potential and the actual. "The proximate matter and the form are one and the same thing, the one potentially, the other actually. Therefore, to ask the cause of their being one is like asking the cause of unity in general; for each

thing is a unity, and the potential and the actual are somehow one." (Met.H. 6.1045b,17).

Rival schools of philosophy, from the Stoics and Academicians on down to the Platonists and Aristotelians of the fifteenth century, and thence even to our own day, have vied with one another in widening the gap between these two traditions. Interpreted through the doctrines of his less gifted disciples of the Academy, Plato has been adopted by mystic and religionist, opposed to the scientific tradition as embodied in Aristotle. Thus, Platonism has come to stand for supernaturalism and the occult as over against the naturalism of its greatest exponent. It is significant, in its bearing upon this question of a "separation" between the Forms and their matter, that in the CRATYLUS, which may be the earliest dialogue in which the word occurs, the "Idea" is described as "the substance of the fact" which it denotes (Cratylus 393 D). And Aristotle, censuring the Platonists for their implied hypostasis of the Ideas, uses the same formula when he inquires, "How can the Ideas, being the substances of things, exist apart?" (Met.A.9.991b,2). Unless we accept the dubious theory that he renounced his earlier views, it is difficult to conceive of Plato's maintaining that they could.

There is, to be sure, a notable difference of emphasis in the two philosophies. The intellectual background against which each was written and taught was not entirely the same. Plato's point of emphasis is the permanence and reality of significant order and definition throughout all existence, in opposition to those who seemed to him to be debasing philosophy by reducing all the meanings or ideal possibilities of existence to the level of bodily contact. Undoubtedly, he had a greater predilection for the abstract dialectic of the Pythagorean and Eleatic "way of truth," than for the natural science of his day. But his immediate successors in the Academy, construing too literally the exposition of his mathematical and logical discoveries, appear to have imputed a supernatural existence to these essences, as in a kind of mathematical theology. There arose the need of a renewed emphasis upon the other aspect of the Platonic logic, which Aristotle supplies in his insistence on the implication of intellectual order with its subject-matter, and the inseparability of common definitions from the particulars to which they refer. "Only a portion of Plato's spiritual legacy descended with his garden to the Academy: the full inheritance passed over to Aristotle, who was thereby qualified to transcend his master." (140)

We conclude, therefore, that Plato was no more guilty than Aristotle of supposing the Forms to be separate things existing outside of their particulars; or what amounts to the same from the logical standpoint, the confusion of the intensional meaning of a term in discourse with a part of its own extension. But that such a tendency was already current in the earlier discussions in the Academy seems quite probable, both from the nature of the Megaric objections, implying as they do this false assumption in logic, and from the subsequent development of Platonism under Speusippus and Xenocrates. The fact is that

identical arguments against a theory of participation are employed in the PARMENIDES and by Aristotle in the Metaphysics. The simplest hypothesis is that Plato had recognised the confusion which the antinomies reveal and had labored with his classes to dispel it in a study and practise of dialectic on which the PARMENIDES is based. It follows that Aristotle entertained the same view of the logical status of the Forms in their subject-matter as did his master, and that his criticism is directed against a kind of transcendence which Plato would likewise have rejected.

Suppose the totality of existence to consist in but three lines, A, B, and C, so arranged that the line A is extended between the lines B and C. Since, by hypothesis, no metrical unit or other basis of mensuration is available, by which the position of the line A can be further defined, we may say that one proposition completely exhausts its reality: "A is what lies between B and C". Now the system of relations comprehended by this predicate can be conceived as a plane, in which any point or series of points will satisfy the meaning of "what-lies-between-B-and-C". Next let this three line universe be augmented. On our hypothesis that only the extension of A is so far determinate, (the lines B and C being otherwise variable), any new line D will be defined by virtue of its being within or without this plane, i.e. as being or not being between-B-and-C. If the former, we may say that the essence of D consists in its "participation" in a plane passing between B and C. Obviously, then, its essence coincides *pro tanto* with that of A. In order to differentiate the two, some further determination of B and C. is necessary, in consequence of which the position of D would be defined by means of other planes, or systems of relations, distinct from the first, e.g. passing between A and B, or between A and C. The whole being or definition of D would ultimately consist in the interception of such correlative planes; it is "what it is" by virtue of the presence of these planes, and it *shares,* with any other lines similarly defined, the reality of its several intercepting planes. The latter exemplify, (very inadequately, as must any schematic symbolisation of logical relations), the ideal meanings of existence, which is here represented by the lines. From the standpoint of the participant lines, it is evident that the planes do not "exist" in the same sense or dimension as their lines. The planes stand for the limits of *possible* relationship among the lines; such that any line which comes into existence will imply the systems signified by "between-B-and-C," "between-A-and-C," etc.

The logic of Plato and of Aristotle, alike, takes into account the genuine duality which every definition involves. But this duality is for neither of them a disjunction in fact between existences and their meanings. The subject of the definition stands for the actuality, the predicate for the potentiality, of one and the same entity. Plato perhaps would not have expressed the distinction in just those terms, since his point of emphasis differed from Aristotle's. Because he is combatting what seemed to him an excessively particularistic, or atomistic, conception of reality, he stresses the priority of significance to the

significant. But in contrast to the hypostatising tendency of the fashionable logistic, both Plato and Aristotle agree that the import of the definition is attribution of meaning instead of the mere juxtaposition of terms. And if it was Aristotle's great merit to have demonstrated clearly that "the universal exists in and through the particular, and that the existence of the particular is in and for the universal," (141), he was simply affirming anew the logical insight which his master had learned from Socrates.

Chapter 5. The Parmenides: II. Mind Orders All Things (132 B-135 E)

PLATO'S greatest influence has come from these two qualities of his philosophy: the love of the permanent and structural elements in existence, and the belief,—based upon moral and esthetic, as well as scientific considerations,—in the essential integrity of human knowledge. This realism makes him somewhat impatient of both skeptical and mystical inclinations (and after all the one is complement to the other, so that the mystic is not infrequently a tired skeptic, and the skeptic a disappointed mystic). These two tendencies in metaphysics seem to have been foreshadowed in the Cynic and Megaric schools, which, differing widely in other respects, were alike in that both employed the weapons of Zeno to attack the validity of scientific definition. Although Plato gives no hint that he considered the resulting puzzles and disputations very important on their own account, but on the contrary treats them as a rule with good-humored raillery, still allusions to them keep cropping up with increasing frequency in the course of his writings. At times, he gives the impression of having had a problem thrust upon him by his pertinacious critics and of being compelled to consider difficulties, which seemed to him quite incidental and verbal, as though they were of prime philosophical importance. It has been pointed out how Plato ascribes the antinomies of predication, discussed in the first part of the Parmenides, to the mistaking of the definitive Forms for separate facts instead of the logical implications of facts. If it were true that the essence Man existed in separation from particular men, then it would be absurd to talk of its distribution in many similar individuals without thereby forfeiting its own identity; nor could it be located in its several particulars as a positive, negative, or equal magnitude without suffering self-contradiction; and even as a general group of many similar individuals, it would require subsumption under a similar essence, and with this again under a third, and so on *ad infinitum*. In any case, the real continuity of the common predicate throughout its really diverse subjects of definition is held to be impossible, and consequently the validity of any significant proposition is undermined.

It is customary to treat the next portion of the dialogue as though it were more of the same destructive criticism as the preceding. Socrates merely continues to present one notion of participation after another as target for Parmenides' dialectic, until he is forced to give up the attempt to justify whatever doctrine he has been maintaining. This interpretation appears unsatisfactory for several reasons. First, the formulae for participation that are directly criticised in the three preceding instances are all suggested by Parmenides, not Socrates, who answers for the most part by a brief affirmative or negative as the rules of disputation required. But in this section, Socrates himself takes the lead in suggesting a possible way of escape from the antinomies. Second, while it is at least highly doubtful whether Plato ever regarded participation from the standpoint criticised in the earlier arguments, the allusion here to the Forms as paradeigmata brings the argument upon unmistakeably Platonic grounds. Third, the principal objection is not, as before, against the possibility of predication in general; but the question now is whether or not classifications or definitions in *our* sphere could be equivalent to participation in the true Forms themselves. Fourth, the argument is no longer *ad absurdum,* and a participation of things in the Forms is maintained in the face of its aporiae.

The point at which the discussion has arrived appears to be this: a mode of participation for each of the three kinds of substance has been formulated, only to prove absurd upon closer analysis. Each formula proved to be wrong because it assumed the Form to be factually separate from its particulars, and we now find Plato seeking a statement of the doctrine which shall be quit of this mistaken assumption and the contradictions it entails. He does this in a passage that throws a great deal of light on his logical theory. But before we consider its interpretation, it may be well to look at two arguments from earlier dialogues which express respectively the incorrect and the correct views of participation that are here contrasted.

The first passage suggests itself because the logical difficulty it exploits bears such a close resemblance to the initial antinomy in the PARMENIDES. It will be recalled that, in the PROTAGORAS, Socrates inveigles the great sophist into a trap by drawing from him the admission that, while virtue is one, it has several distinct parts. Protagoras has to choose between conceiving their relations to the whole after the analogy of the distinct parts of the face (heterogeneous) and conceiving it as the relation of greater and smaller segments in a piece of gold (homogeneous). The argument finally concludes that wisdom and σωφροσύνη cannot be entirely "other" than one another, as implied, because they have the same contradictory opposite, viz. non-wisdom or folly (ἀφρωσύνη), and it has been admitted that everything has only one opposite. (142) Now it is hard to believe that this sophistry was inadvertent on Plato's part, and intended for a bit of serious refutation. The humorous character of the rest of the dialogue points rather to a travesty of Sophistic argument,—probably Plato wanted to show Protagoras trapped by Socrates in one of his own "Antilogies." For present purposes, the chief significance of

the argument lies in the manner of stating the problem of identity and diversity,—how justice, holiness, and the rest, being *different,* can yet be parts of virtue. The difficulty traces back to what appears to be a deliberate misconception of the Form or nature of virtue. "Is justice a *fact* or not a fact?" asks Socrates (ἡ δικαιοσύνη τὸ πρᾶγμα τί ἐστιν ἢ οὐδὲν πρᾶγμα;.) And when Protagoras answers that it is, Socrates imagines someone asking whether "this *fact* that you have just now named, justice, is itself just or unjust?" Protagoras 330 C). The problem is then to get "this fact" into a common definition, when it is independent and wholly explicit as something else.

Such confusion of meaning and fact, on the other hand, is noticeably absent where Plato wishes to exhibit the genuine relation of the Forms in their subject-matter. A case in point occurs in the contrast of the true philosophers with the "lovers of sights and sounds" in Republic V. Here it is said that he is indeed a dreamer who loves fair sounds and colors and shapes but is incapable of beholding and loving the Form of beauty itself; he bows to the facts instead of their meaning, and mistakes the visible similars for their real pattern. But the philosopher is truly awake, for he is able to distinguish the Idea from the things that participate in it and does not confuse the one with the other. The reason is (1) that opposites such as fair and ugly, good and bad, just and unjust, are really distinct, and thus (2) there are several definitive Forms, each of which is *one,* but (3) "in the combination of facts or bodies or of the Forms, with one another, perceived in diversity, each one appears as many." If these two passages have been rightly contrasted, it follows that the distinction which participation implies, according to Plato, is one of logic, and not of fact; a distinction *in judgments* (as the objects of dialectical inquiry) between the discovered meaning and the subject-matter within which it is discovered. Here is perhaps the key to the discussion of mind in the Parmenides.

—But is it possible, Parmenides, that each of these Forms is a meaning (ὅημα), and can not properly come to pass except among souls? For thus each would be one and yet escape the difficulties just mentioned.

—What! said he, is each of these "meanings" one, but a meaning of nothing.

—Impossible.

—Then (it means) something? —Yes.

—Something that is or something that is not? —The former.

—And must not this that is be a 'one' which the meaning means with reference to all (its particulars), as some single real Idea?—Yes.

—And is not this 'one' that is meant and which remains ever the same with reference to all (its particulars), is this not just the Form?

—That seems to follow of necessity.

—Well, then, must you not suppose, if as you say the others participate in

the Forms, either that everything exists by virtue of meanings, and all things have mind, or that there are meanings that mean nothing?
οὐκ ἀνάγκη ἢ τἆλλα φῂς τῶν εἰδῶν μετέχειν ἢ δοκεῖ σοι ἐκ νοημάτων ἕκαστον εἶναι καὶ πάντα νοεῖν, ἢ νοήματα ὄντα ἀνόητα εἶναι; 132 B).

This passage has given rise to more difference of opinion among critics than any other in the dialogue. Probably this has not been due so much to any subtlety, or other intrinsic difficulty in the argument itself, as to the controversial character of its terms. How, for example, is *ἐν ψυχαῖς* to be understood, without prejudice from a mass of medieval and modern speculations? And it is even more difficult to render the term, *νόημα*, (literally, an outcome of the operation of mind), without importing extraneous presuppositions. "Idea," "thought," "notion," "concept," are all open to objection on the same score. The word "meaning" seems least obnoxious from the standpoint of controversy and it comes closest perhaps to the Platonic usage. (143) It is here that the effects of introducing the modern subject-object categories are most apparent. For the passage is commonly believed to express some kind of subjectivism,—Berkeleyan idealism, Lockean or Kantian conceptualism,—and since few have been willing to ascribe any such view to Plato, the argument is dismissed as a mere by-play. Once it is admitted that mind, for Plato, does not connote the "mental," "subjective," or "spiritual" in a modern sense, and that what is "in soul" is not for him in "consciousness," but has reference simply to vital activity, any subjectivist interpretation becomes untenable.

What the argument signifies will perhaps be best disclosed if we start with the concluding dilemma and follow back the steps of the reasoning upon which each of its alternatives is based. To begin with the impossibility that "there are meanings that are meaningless." This seems to follow from taking the preceding statement about the Forms as purely tautological. Granted that the Form is the meaning of the subject in a definition, what does this Form itself intend, what is the meaning of the meaning? The answer is circular, and necessarily so; for, (according to the law of identity) each definitive Form has to mean neither more nor less than what it does mean, viz. that same definitive Form (144). Now from the standpoint of the previous antinomies, where the Forms have been considered as separate and wholly explicit entities, the assertion that each single Form intends simply itself is wholly redundant; hence, if the Form is meaning, it is a meaning that means nothing. This conclusion is, of course, rejected as unreasonable. The other horn of the dilemma is the assertion that "everything *is* by virtue of meanings, or all things have mind." In the light of this, the premise that each Form means what it means is not a mere tautology. On the contrary, it conveys information that definition is the making explicit of what was implicit in its subject-matter, and that the definitive Form *is* the significance of the definiend and implied in its own nature. So the conclusion appears to be one way of expressing good Platonic teaching that all existence is what it is only through its participation in Forms and that

there is a Form for every natural object (145). And this alternative is *not* denied. (146) We have then the following result:

If there is participation, either all things have mind, or there are meanings without meaning.
There is participation.
Therefore, either all things have mind, or there are meanings without meaning.
But the latter is unreasonable.
Hence, all things have mind.

This is (perhaps intentionally) reminiscent of Parmenides' dictum, "it is the same thing that can have mind and that can be" (*τὸ γὰρ αὐτὸ νοεῖν τε καὶ εἶναι*) which is almost axiomatic throughout the development of ancient dialectic (147). It would certainly be amazing to find it denied as absurd in a discussion between Parmenides and Socrates. For it is just at this point that the Socratic and Eleatic doctrines were in closest agreement.

We have now to consider its specific bearing upon logical theory in the present context. Aristotle puts us on the track of it, when he concludes, "And now in order to emphasize the essential in what we have said about the soul, let us say again that *the soul is in a sense all things*" (*ἡ ψυχὴ τὰ ὄντα πώς ἐστι πάντα*, De Anima III.8.431b). And in another passage he has said that Mind thinks or intends everything (*πάντα νοεῖ*) and is therefore by nature potentially all that is (ib.III.4.3). But he is careful to add that prior to thinking (i.e. before a meaning does occur), mind is in actuality non-existent (*οὐδέν ἐστιν ἐνεργείᾳ τῶν ὄντων πρὶν νοεῖν*). He gives us to understand how mind is potentially the totality of existence, while it is actually nothing that exists, by analogy with the nature of sense-perception. The latter process has three constituents, the sense-organ, the medium (air, translucence, water), and the sensible. Now before the actual sensation of seeing, hearing, tasting something, the sensitive and the sensible, while actually distinct, are potentially the same, and the medium is neutral, or passive. In the sensing of the object, the medium becomes active and that which sees or hears is identical with what is seen or heard. Thus, the (brute) soul is the realisation of organs and objects of sense, which are potentially the same prior to, and actually the same in sensation. Similarly, the rational soul, or life that is intelligent, is potentially all that is revealed in the active relation between a natural organism and its surroundings. But here the actuality is that of universals in the particulars. Hence, it is right to say that actual knowledge *is* what is known and that mind is potential in all existence (*δυνάμει πώς ἐστι τὰ νοητὰ ὁ νοῦς, ἀλλ' ἐντελεχείᾳ οὐδέν, πρὶν ἂν νοῇ* De Anima III. 4.11; cf. III.8). It is only a short step back from this doctrine to the statement of the PARMENIDES that everything exists by virtue of meanings and all things have mind. Indeed, Aristotle endorses those "who hold the soul is the sphere of Forms, except (he adds) that it is not the entire soul, but only the

intellectual, and it is the Forms, not actually, but potentially." (ib. III. 4. 5). The logical counterpart of these views of universal mind, containing the Forms in potentiality, and of their individuation in actual knowledge, is found in Aristotle's doctrine of the discursive nature of truth and falsehood. He has shown that knowledge is conversant not with individuals, nor with universals, taken singly, but with their synthesis and discrimination in discourse. In other words, true and false are applicable only to Forms or Categories in their implication (*συμπλοκῇ*) with one another; "but things spoken without any implication, such as man, white, is running, is conquering, are neither true nor false." (Categories IV. 2a, 4. 7). Again, "it is of affirmation (*σύνθεσις*) and negation (*διαίρεσις*) that there is truth or falsehood" (Interpretation. I.16a). (148) This is precisely the doctrine that Plato suggests in the PARMENIDES and makes explict in the SOPHIST.

In view, then, of these significant resemblances between the arguments of the PARMENIDES and those of Aristotle, it seems not unreasonable to conclude that Plato is here throwing out hints toward a theory which Aristotle later develops in a more systematic and positive form. This receives additional corroboration from a familiar section of the PHILEBUS, which serves to connect the two dialogues. In the PARMENIDES, according to Burnet, "the question of the One and Many, so far as it refers to the predication of opposite attributes, and to the relation of whole and parts, is disposed of by the participation of sensible things in the forms, and it is then shown that the real difficulty lies in the union of One and Many in the forms themselves." The possibility of a direct solution is only hinted at, and "we shall see that the PHILEBUS puts us on the way to it." (149) Socrates and Protarchus are discussing the comparative merits of pleasure and knowledge,—which of these two is to be named truly good? At the start, the old puzzle of identity and diversity presents itself, and in much the same way as in the PROTAGORAS. (150) In this instance, a single positive predicate, the good, is found to be conjoined with a plurality of subjects,—viz, pleasures or sciences; for pleasure is a many and so is knowledge. Must we, perchance, deny the obvious differences in the subject-matter, and say that pleasure and knowledge are respectively uniform? or affirm that good is manifold? Both alternatives seem impossible. Socrates now proceeds, with a hint of irony, to estimate this logical difficulty and describe the way it should be handled. It is due, he says, to a certain principle that has been puzzling everyone,—some by deliberate choice (the Megarics?), others against their will (the Cynics?),—a most amazing principle, a regular marvel!—that the many are one and the one is many. I am not thinking of those simple and puerile perplexities that are vulgarly associated with this principle. The banality of such paradoxes of one and many with respect to perishable existences (i.e. so-called "deception of the senses") has by this time been exposed (cf. Parmenides 129 B). It is, instead, the connection of the Forms with one another, their presence in particulars, or predication, that concerns us. When the reality of the unitary Forms (*μονάδαι*) is disputed

and it is asked how, being permanent, they can be scattered among the impermanent and indefinite, we shall be caught in genuine contradictions unless the matter is very carefully set forth from the start. We must clearly recognise that *"this union of one and many occurs by means of rational judgments* (ὑπὸ λόγων) *and runs through all discourse,"* not in any accidental and temporary sense, but once and for all, in the past as in the present (151). "For it is an undying and ageless affection ἐν ἡμῖν of these judgments" (Philebus 15 B). The special significance of this statement lies in the epithet "undying and ageless," which seems to have been borrowed from Ionian philosophy and used as the conventional description of the "primary substance," or φύσις of which the world is made. And this "nature," at first the "stuff" out of which anything is composed, comes to mean its structure or general character. "Those early cosmologists who were seeking for an 'undying and ageless' something, would naturally express the idea by saying there was 'one φύσις' of all things. When this was given up, under the influence of the Eleatic criticism, the old word was still used" (152). Now Plato tells us again and again that true being has its substance, or nature, not in the various "elements" of which the physicists were so fond of speaking, but in a universe of discourse. All being is propositional. And when he says that the Forms come to pass in the sphere of souls and all things have mind, or that the principle of unity in diversity is an "undying and ageless" affection in us, he intends to establish it as a fundamental quality of mind, that the definition of things in rational judgments is the conjunction, once and for all, of a one and a many. *The substance of mind is eternal and its mode is by nature in souls.* This, according to the PHILEBUS, must be our preliminary clarification in the face of the eristic perplexities. True dialectic does not exploit the principle of definition merely for the sake of creating problems. It prefers Plato's "favorite way" of division and classification, seeking out a definite and specific meaning of one in many, or of many in one (Philebus 16 C sq.).

In the allusive and summary disquisition of the PARMENIDES, one hears echoes of innumerable discussions from the Academy,—the patient search, the exhaustive examination of each new difficulty by master and pupils, the continual revision of theory. (153) The dialogue contains the *resume* and record of such inquiries, rather than the statement of accepted conclusions. "We are by ourselves," says Parmenides, and can thus take time to sail through this "sea of discourse". For, as Zeno has remarked, it is "a difficult theme to discuss in public", since the man in the street is unaware how devious a course must be steered in reaching the truth (Parmenides 137 A, 136 E). The finality that marks Plato's criticism of these same logical antinomies in the PHILEBUS is less conspicuous here. Nevertheless, the same attitude is maintained toward them and furnishes a clue to the logical analysis which follows.

On the assumption that the Forms are wholly explicit, the statement that each is νόημα and that somehow its intension must be identical with its extension, turned out to be a mere tautology. In order to obviate this misunderstanding, Socrates cites the "paradeigmatic" view of participation.

"The latter alternative (that there are meanings without meaning) does not make sense, but the way it looks to me, Parmenides, is rather as follows: the Forms stand *in natura* as though they were patterns, and the 'others' resemble them and are alike, and this participation is nothing else than such resemblance" (Parmenides 132 C12 -D4). Here again is a figurative way of describing predication, but in this case, of course, it happens to be Plato's favorite metaphor. Nevertheless, *as a way of formulating* the nature of predication, it proves unsatisfactory from the standpoint of the present inquiry. In the two final objections, the truth of participation is not in question; the asserted difficulty comes from the attempt to give it a rational exposition, (cf. 135 A 5,7). First, by calling the Forms patterns, we have not escaped the difficulty of the Third Man. Presumably, the pattern is one entity and its copy another, and if their resemblance is real, it must have its own type, by which the relation is related to the relatum, and this implies a further type, etc. The pattern-theory of participation is, therefore, inadequate and some other must be sought. Here, the Third Man problem is dropped, with the remark, "You see, Socrates, the difficulty that arises when one defines everything as a Form that exists," and (except as it may be included under the general comment with which the discussion of the aporiae closes), no "solution" is offered. But in the SOPHIST, this puzzle and its corollary, the impossibility of significant negation, if not solved, are at least emphatically disposed of. There is, says the Eleatic Stranger, a communication of the Forms with one another, and thus we do find, despite apparent contradictions, that classes are distinct, and different each from the others, while still related. He challenges him who doubts it to supply a better account, advising him not to waste time pointing out obvious and jejune perplexities. We must resist these hypostatisers, for "the separation of each (essence) from all the rest involves the complete disappearance of all rational judgments; since it is through the implication of the Forms with one another that the judgment occurs ἡμῖν," (διὰ γὰρ τὴν ἀλλήλων τῶν εἰδῶν συμπλοκὴν ὁ λόγος γέγονεν ἡμῖν, 259E).

The second objection, which is "the greatest of all" the difficulties, contends that the Forms, conceived as patterns, will be inaccessible to human knowledge. For if they are single and separate substances, their connection with what we predicate of existences "in our sphere" (ἐν ἡμίν) will seem utterly impossible. Thus the meaning for us of a relationship, such as master-and-slave, cannot be the same as the meaning of the true relationship, which subsists between the Idea of mastership and the Idea of slavery. And the converse of this is even more absurd, since it leads to the monstrous supposition that the divine reason, to which knowledge of the Forms αὐτὰ καθ' αὑτά is above all appropriate, must be incapable of knowing the things that relate to our sphere of meaning. Now this skepticism fits in with the tendency, in the doctrines of the older Academy, to break up reality into separate and exclusive grades of being. Aristotle accuses Speusippus of having multiplied the kinds of substance by inventing separate principles, (beginning with the One,) for numbers, spatial magnitudes, and the soul (Met.Z.2.1028b,23). He taught

also that it is impossible to have true knowledge of one thing without knowledge of all others things as well, and that implies omniscience (Post. Anal.II. 13,97a,6). It is improbable that Speusippus, on this account, went so far as to doubt the validity of definition and division, as some later commentators have supposed (154). But the germs of such skepticism can be detected in the little that remains to us of his teaching (155). Is it too much to infer that this passage about the relation of the Forms to human knowledge was intended to recall similar questionings during the course of Plato's teachings? In any case, Plato does not for a moment admit the truth of the contention (156). That it is a formidable objection and possesses a large degree of plausibility, he frankly recognises. But it can be refuted, although this will require a lengthy and intricate argument and a mind of considerable dialectical ability and training to follow it. Of what will this refutation consist? Plato does not tell us in so many words, but it seems reasonable to identify it, in its preliminaries at least, with the "laborious pastime" which Parmenides is presently prevailed upon to undertake. Or, as it is expressed in a similar context in the SOPHIST, "we can tell (our critic) of something else the pursuit of which is noble and also difficult: . . . letting alone these puzzles . . . , he should be able to follow and criticise in detail every argument, and when a man says that the same is in a manner other, or that other is same, *to understand and refute him (from his own point of view), and in the same respect in which he asserts either of these affections.*" (157)

This brings us to the crux of the whole inquiry. The principal antinomies of definition have been reviewed and it has been argued that if the Forms are separate and self-identical substances, (and in a sense they must be so regarded), their connection with the subject-matter of discourse is absurd, and predication, or the participation of existences in their common meanings, is a contradiction. Well, Plato's reply amounts to this,—what are you going to do about it? What about philosophy,—is this love of wisdom nothing, after all, but a pursuit of contradictions, and truth an *ignis fatuus* that leads us, willing or unwilling, into an ultimate confusion? For, as Socrates has "especially remarked", to deny the validity of definition is to put an end to rational discourse. If the Ideas of things were completely out of our grasp, as these "controversial experts" would have us believe,—in other words, if the real meanings of existence meant nothing to us (*ἀγνοουμένων τούτων*), —then no certitude would remain for the intellect and further reasoning were in vain. Parmenides' advice to the youthful Socrates, like that of the Eleatic Stranger to Theaetetus, and of Socrates to Protarchus, is to put aside these problems of Being and look at the structure of actual discourse. Instead of doubting logic, go and find out what logic is, in the practise of argumentation. For example, to settle the present dispute, take a proposition in which something is affirmed of a subject, and another in which something is denied, and work out its logical consequences, first on the supposition that the Form is merely self-identical, second that it is implicated with other Forms, i.e. has Being; and pursue this method of investigation through the several categories, until the nature of definition stands revealed, both with respect to the inclusion

of the many in the one, and the division of the one into the many. This kind of discipline, says Parmenides, must be your training in youth, for without it the truth will escape you when older.

Chapter 6. The Parmenides: III. Analysis of the Categories (137 C-166 C)

VER half a century elapsed between the first deliberate study of definitions by Socrates and the systematic formulation of principles and rules of demonstration in the Organon. The period witnessed the gradual emancipation of logic, as the science of rational discourse, from the art of effective debate which had absorbed the efforts of Sophists and Rhetoricians in the preceding century. Attempts to expose the weakness in judgments that were commonly accepted gave way to a search for the common basis of those that were true. There was, as Professor Dewey has said, a "transformation of discussion into reasoning, of subjective reflection into method of proof". (158) On the one side, the reactionary Socratics were trying to invalidate the results of contemporary science by pointing out the contradictions involved in all demonstration. On the other, Plato was working out a theory of dialectic by examining the methods employed in the specific subject-matter of the several sciences and crafts,—medicine, politics, mathematics, etc. Out of the conflict between these two different tendencies in the Socratic teaching came the discovery of the *structure,* as well as the rules or method, of scientific proof. "For the undertakings of methodology lead to certain special problems, such as Plato and Aristotle already began to study, and such as recent inquiry makes more and more manifold and important. . . They are problems regarding, *not* the methods by which the thinker succeeds, nor yet the norms of thinking viewed as norms, but rather the *Forms,* the *Categories,* the *Types of Order,* which characterize the realm of objects which a thinker has actually succeeded in mastering by his methods. Taken in this sense, *Logic is the General Science of Order, the Theory of the Forms of any Orderly Realm of Objects,* real or unreal" (159).

The Parmenides discloses some of the pioneer investigations in this field, together with the provisional theories out of which the science of logic emerges. The perplexities, which happen to be the immediate occasion of the dialogue, centre around a distinction of fundamental importance to the proper understanding of logic: viz. the intensional and extensional meaning of terms. Having described the problem, Plato now devotes the rest of the discussion

to the principles of definition that are in question. This analysis will not be confined to those matters which later specialisation has made proper to the subject. Jowett has remarked that, with Plato, "logic is still veiled in metaphysics." (160) And we find him here examining the principles of implication in connection with questions of time, space, and causality, for the reason that the laws of thought were for him inseparable from the laws of nature. He recognises, or it may be that he never questioned, the truth that the order of meaning is one and the same with the order of things,—a truth that has been alternately discovered and forgotten from the time of Parmenides to the present. *Ordo et connectio idearum idem est ac ordo et connectio rerum,* said Spinoza; and Jevons found it necessary to repeat that "we cannot suppose, and there is no reason to suppose, that by the constitution of the mind we are obliged to think of things differently from the manner in which they are" (161). On the other hand, considerations of logic, in the narrower sense, which usually pass unchallenged with us, are here drawn out with attention to detail that has helped to endow them with a specious and unmerited profundity. "Thoughts which now seem methodological commonplaces," says Royce (162). ". . . at that early stage of the history of logic were momentous for the whole future of the subject. The elementary text-books still repeat the substance of these observations, even if their context is no longer that which appears in Plato's dialogues."

To recall step by step the arguments from the "hypotheses" would be at once tedious and superfluous. It will suffice instead to point out the main plan and purpose of the "laborious pastime", according to the present interpretation, along with some of its principal indications for logical theory. We have suggested that the PARMENIDES is a recapitulation of certain inquiries undertaken in the Academy and intended to make clear Plato's attitude toward the more pertinent criticism of his doctrine of participation. The answer to the problems of continuity and diversity must be sought, not in arguments about the One and the Many at large, but in the real conditions to which the definition of a one in a many, or a many in a one, does conform. Now the fact that the latter part of the dialogue is filled with contradictory statements does not militate against this view. No one supposes, for example, that Aristotle's *De Interpretatione* is "ein Gewebe von Sophismen" because it contains opposite assertions about the same subject. It is known that no significance attaches to these propositions apart from the formal structure they are intended to exhibit. And most of the obscurity that has troubled critics of the Parmenides is due, I believe, to the attempt to read a profound ontological meaning into terms that stand here as little more than algebraic symbols. We might conceive of a somewhat similar, even if preposterous, situation, by imagining the destruction of every logical treatise now extant, with the exception of a fragment from a single text-book. Suppose that this were discovered two thousand years hence and turned out to be the well-known exercise from Jevons, in which it is stated in turn that "All just acts are expedient acts", "No expedient acts are just", etc. The commentaries would be rife with speculation were the fragment regarded as a piece of political theory,—some

scholars holding it to be "a most profound specimen" of a treatise on transcendental Justice, while others classed it as a mere travesty on contemporary philosophy.

But it may be objected that there are other fallacies in the dialogue, besides the presence of contradictory statements,—notably in "the abuse of the double function of the substantive verb." Here, as in the SOPHIST, so it is said, Plato fails to grasp the distinction between "what is not", referring merely to the non-existent, and "what is not", as significant negative predication. This is not unlike the habit, common to the text-books, of making Linnaeus stand as a horrible example in artificial classification. Just as his efforts were directed toward a method of scientific grouping and were in large measure responsible for its discovery (163), so Plato was attempting to clear away the confusion in the predication of being, and in his insistence upon the significance, in some sense, of negative predication, he made possible a clearer understanding of the nature of judgment. It is often asserted that the Greeks were misled, by a mere peculiarity of language, into futile speculations about problems of Being and Non-Being, which might well have been avoided had they recognized the ambiguity in the use of τὸ ὄν and μὴ ὄν. "The fog which rose from this narrow spot," says Mill (164), "diffused itself at an early period over the whole of metaphysics. Yet it becomes us not to triumph over the gigantic intellects of Plato and Aristotle because we are now able to preserve ourselves from many errors into which they, perhaps inevitably, fell." The ambiguity of the copula was hinted at by Hobbes, he thought, but distinctly characterised for the first time by the elder Mill. As a matter of fact, the eristic fallacies, to which Mill alludes, were clearly recognised by Aristotle (165), and before him, if we are not mistaken, the question had received ample consideration at the hands of Plato. Furthermore, it seems hardly correct to say, as Mill does, that the difficulty arises in the ambiguity of the *copula,* and is avoided by a discrimination of meaning in the word "is". For, surely, no analysis, however subtle, would be able to determine merely from the copula itself whether existence or some other qualification of the subject were intended (166). That information must be sought rather in the nature of the *predicate,* as Mill's example indeed proves; for if we have the proposition, A centaur is a fiction of the poets, compared, let us say, with the proposition, Socrates is in Athens, we shall find the distinction between existence and non-existence in the *kinds of being* predicated, and not in the formal relation, which is the same in either case. "The frivolous speculations concerning the nature of Being" seem to have been designed, in the case of Plato and Aristotle at least, to show the several types or categories of being under which predication is possible; thereby exploding the eristic contention that either negative or affirmative definition of a substance implies the total destruction of its identity. For the senses of "being", as Aristotle says (167), are just as many as these figures of predication, or categories. And in another place he observes that "after all, 'definition', like 'what a thing is', has several meanings; 'what a thing is' in one sense means substance and the individual, in another one or other of the predicands, quantity, quality, and the like" (168). If Plato was in search of a

similar clarification regarding the conditions of definition, it is plainly beside the point to disparage this whole inquiry on account of the sophistries that furnish its point of departure.

Now the analysis in the latter part of the dialogue presupposes throughout Plato's "favorite method" of definition: viz. dichotomous division of the class under which the definiend has been subsumed. There is good reason for supposing that much of the work carried on in the Academy consisted of this practise with various kinds of subject-matter. The examples published in the GORGIAS, SOPHIST, and STATESMAN, while presumably of a more or less playful intent, show pretty clearly that Plato considered this the right way to go about determining, or demonstrating, the essence of any given subject. Furthermore, Aristotle's criticisms of the method leave little room to doubt that διαίρεσις was the accepted method of scientific investigation in the Academy (169). There is also an amusing bit of confirmation in a fragment from the comic poet Epicrates (179), a contemporary of Plato. Thus, the youthful training in what is vulgarly called idle talking, but is an indispensable preparation for successful inquiry (171), can be readily understood as having been designed to fit the student for this work of definition, by teaching him its principles and enabling him to demonstrate its results to others. It is perhaps that same preliminary discipline to which Plato refers in the REPUBLIC as "the gymnastics of the soul"; the necessary preparation for dialectic, to be pursued by select minds for a period of five years,—"such an education as will enable them to attain the greatest skill in asking and answering questions" and "to run the gauntlet of all objections, and be ready to disprove them, not by appeals to opinion, but to absolute truth, never faltering at any step in the argument" (Republic VII,534 sq. Jowett; cf. ib,IV,435 D, Charm.170sq.).

Accordingly, the deductive elaboration of the "hypotheses" will be a specimen, or partial *resume,* of the material used in this training,—the nearest approach to a text-book in the writings of Plato. It amounts to an analysis of the structure of logical implication, in order to clear up a prevalent confusion concerning the interrelation of the Forms, or essential meanings, in discourse, and to discover the conditions whereby one Form, while preserving its intensional identity, is or is not extended into a multiplicity of subjects. Suppose, to take a stock example, the essential meaning of a particular triangle, —a "suchness" (τοιούτον), —has been defined by successive division of its highest genus down to its specific difference. First, it participates in the one Idea of Figure; but this unit is divided into the Plane and the not-Plane, (or solid); and the definition "plane figure" divides further into rectilinear, and the others; and "rectilinear plane figure" reveals the dichotomy of "what has three sides", and what has not, etc. Now the criticism of this procedure, in theory, had maintained that a definition or explicit essence must either be wholly a unit, in which case its implied differences are illusory, or else a complete diversity of individual essences, in which case its unity is fictitious (172). Plato's answer to these logical antinomies is, as we have seen, that they land us in a futile doubt of philosophy. Their proper elucidation must be

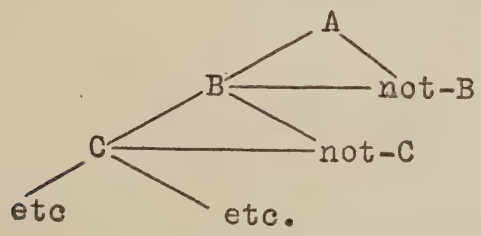
sought in the actual procedure of dialectical inquiry; for if contradictions result from the relation of identical Forms to their diverse subject-matter, the fault lies in one's view of that relation, not in the nature of scientific definition. Let τὸ ἕν stand for the logical subject of a judgment or definition, whose import is to be investigated, and τἄλλα or ἕτερα for all that is excluded from the defined essence and comprised successively in its contradictory opposites (173). Two views of the logical status of "the One" with the "Others" are now offered for analysis: it is regarded (1) as an independent and wholly explicit entity, in the sense in which the earlier perplexities apply,—as τὸ ἕν ἁπλῶς; (2) as implicit in the subject-matter or being of the definition, (τὸ ὂν ἕν). The negation and affirmation of the One, taken in each sense, are then analysed, as to what follows both in respect to itself and in respect to the contradictory opposite, the Others. This yields eight cases, or "hypothesis," in each of which the method of procedure follows the same general scheme: the hypothesis is examined under the several predicables, or categories, which with their various modes represent all possible ways for a Form to be affirmed or denied of its subject-matter. We know that Plato recognised five such general kinds, or categories: (1) Being itself, (τὸ ὄν),(2) Rest (στάσις), (3) Motion (κίνησις), (4) Identity (ταὐτόν), (5) Difference (θάτερον) (Sophist, 250sq..). In four of the hypotheses, where the One is taken as an explicit entity, but apart from its specification in being, the analysis results in a *reductio ad impossibile.*

1. Being.

It will be recalled that Plato is following a certain order, both in the consideration of the aporiae and in the analysis of the hypotheses,—an order provided by his distinction of substances into Forms, objects of mathematics, and sensible existences. So, under this most general category, Plato considers the One as logical whole, then as numerical or geometrical essence, and finally as located in existence. Now the whole, with its parts, seems to have been conceived by Plato as proportion, or perfection, of being; a logical, or rather poetic, completeness (174). The question is, then, in which view do we find the One affirmed or denied as a Whole,—simply and apart from its differences, or implicated in these? He is able to show that, in accordance with the former view, the propositions, "there is One' 'and "there is no One", lead to absurd consequences. With reference to itself, the One must be a Whole without parts (137 C,4-137 D,3), and with reference to the Others, since it will be entirely separate (χωρίς), it must leave them absolutely indefinite, either as whole or parts (159 B,2-159 E,1). No less absurd are the results for the simple affirmation of the One as *mathematical substance.* For lacking parts, it must be without limitation of any sort and can partake neither of the straight nor the round (137 D,4-138 A,1); while the Others, unrelated to the One and thus deprived of any principle of limitation, do not participate in number or measure (159 E,2-160 B,1). Nor is it possible in this view to allocate either the One or the Others (in existence): since the One is

witout segments or figure it cannot contain or be contained by anything, even itself (138 A,2-138 B,6); while the Others, as absolutely indefinite, have neither the unity nor the multiplicity necessary to existence (159 D,1). Turning now to the complete denial of the One, the conditions of the hypothesis require that no kind of being apply to it, (whether formal, mathematical, or sensible): we mean that the One simply (ἁπλῶς) lacks being (163 B,7-163 D, 7). It follows, too, that the Others must be absolutely indefinite, not only in reality and for dialectic, but in appearance as well; with complete absence of being there are no imaginable relations. Thus, supposing an essence to be simply an identical and self-subsistent entity, we find it impossible to predicate being of itself or anything else.

The results are quite different in the case of the significant or ampliative propositions, "One-as-being is" and "One-as-being is not". In the first place, the analysis proves that the One is a *Whole* and composed of parts. Here, we are affirming or denying a Form in its differences, or differences in a Form, so that it is possible to distinguish at the outset between the two parts of the definition, One and Being of One. Now each of these parts implies the other, since by hypothesis the One has being, and Being has unity. Hence, each part reveals a further dichotomy into One and Being, and so on into an infinite multiciplicity of parts. The meaning of this argument can be illustrated by the bifurcate division, to which Plato seems to be referring.



Let A represent a significant class, or "One-as-being",and B, not-B, C, not-C, etc. the successive differences that comprise its being. We may distinguish, says Plato, between that portion of A, whose essence we are trying to define, viz. B, and the total being of A, exclusive of B, viz. $A\bar{B}$. Thereby, we find a further determination of A, which is again a "One-as-being", and divisible once more into the B that is C (One) and the total being of B, exclusive of C. Thus, as the process of definition continues, "being always involves one, and one involves being; so that one is always disappearing and becoming two." (142 E,6). Now it is from this logical division of a class into its segments that the mathematical determination of substance is derived (175). Suppose that A-that-is-B has been defined. Let us conceive this determination by itself as *one* (αὐτὸ τῇ διανοίᾳ μόνον καθ' αὑτὸ λάβωμεν, 143 A,7). Thus abstracted, B differs from A by $A\bar{B}$, so that *with reference to the division of the class A,* three terms are now discovered: A, B, and $A\bar{B}$ (Being, One, and Other). (176) From this conjunction of One with Being in definition, Plato

then deduces the principles of odd and even, whence in turn the whole system of numbers is generated. For any of the relations in the division of a Whole involves a dyad and the principle of the Even, while in the conjunction (συζυγία) of this couple with the remaining term to complete the Whole, the triad in the original One is discovered and with it the principle of the Odd. Thus it is demonstrated how One-as-being can be affirmed as mathematical substance and, while maintaining its (intensional) unity, can be extended into an infinite number of definite parts (cf. Republic VIII,524). And since number is predicable of it, then also measure and spatial configuration; and finally, as a unity divisible into definite particulars, it can be located both collectively and distributively in its sensible existences (145 B,6-145 E,6).

What now is the logical import of the statement "One-as-being is not"? Although the category of Being is denied of it, the One is not indefinable. It can be distinguished from the not-One, since the propositions "One is not" and "Not-One is not" are different. On this hypothesis, the One has further significance and specification; it is divisible into its differences (160 B,6-161 A,5). The passage in which Plato demonstrates how negative predication can be significant, or how "what is not" does partake of substance, is difficult to follow, chiefly on account of the cumbersome repetition of the negatives. But if the suggested emendations be omitted, and the passage studied carefully as it stands, it will be seen that what Plato is examining is simply the "quality" of a proposition with reference to its obverse and contrapositive. Translated into more convenient symbols, the analysis is as follows: (161 E, 3-162 B,8)

> the statement "x is not y" means "x is not-y", since if "some x is not not-y" it immediately follows that "some x is y".
>
> Therefore, the affirmation of not-y is the "bond" of the negation of y. And similarly, the negation of not-y is the "bond" of the affirmation of y, (i.e. the statement "x is y" means "x is not not-y").
>
> The most complete form of an affirmative proposition is: "x is y", where "x is not not-y", (obverse of A). And the most complete form of a negative proposition is: "not-y is not not-x", where "not-y is x", (contrapositive of E).

As to the Others in the hypothesis "One-as-being is not", they will remain throughout absolutely indefinite. As a group, (ὁ ὄγκος αὐτῶν), they are infinitely divisible, but their limits are only apparent, like things in a dream whose dimensions are ever changing at a nearer approach. In other words, while the significant negation of a Form implies being of some sort for all that is excluded from the Form, (since this is known to *be other* than the Form), yet this other Being is wholly uncertain: it is the Great-and-Small as still lacking definition (164 B,6-164 D,8).

2. Rest-Motion, Same-Different.

Once more, let it be said that the object of the arguments is not to explain these categories. Nor is it to describe, for example, the nature of change or motion, as one might attempt it from the standpoint of physics. It is instead to show just what is involved for logical theory in the several kinds of predi-

cation, on the assumption (1) that an essence is absolutely simple, and (2) that it has a real complexity, which definition discloses. The burden of the Megaric criticism lay in its denial that motion and diversity are intelligible, on the ground that they presuppose negative being, which (so it was contended) is inconceivable. These categories are absurd, replies Plato, but only for a view of essences which already begs the absurdity in question. Moreover, Zeno's paradoxes are a double-edged sword: if the category of Motion is a logical impossibility, no less is the category of Rest; if the category of Difference, then also that or Identity. In other words, the notion that the essential meaning of a fact is a separate and unrelated entity precludes every kind of predication,—not excepting that of complete identity. In the actual business of definition, however, it is found that one Form *is* implicated with the multiplicity of its being after a certain fashion, so that, subject to the structure of such implication, these categories are predicable without absurdity. Now, Motion is here denominated the condition whereby One is *in* Other, i.e. not-One; while Rest is said to mean that One remains in the same,i.e. the One. Following the sequence indicated by the three distinct kinds of substance, (formal, mathematical, and sensible), Plato then considers the categories of κίνησις and στάσις, (1) as *alteration* and its opposite, (2) as *motion* (orbicular, and linear), and its opposite, (3) as the process of *generation* (and destruction), with the opposite state of *persistence*. The categories of Same and Different resolve themselves into (1) *qualitative* similarity and dissimilarity, (2) *spatial* and *quantitative* relations, and (3) *temporal* coincidence and sequence.

From the four hypotheses, that "There is (or is not) One" ἁπλῶς, since all complexity in itself as well as all relation to the Others (or what it is not) has been shown to be impossible, it follows that the One neither moves nor remains at rest (138 B,7-139 B,3, 163 E,2-164 A, 1); neither is it the same nor different with respect to itself or anything else. One of the most important sections of the whole analysis occurs in the proof that the simple affirmation of the One violates the principles of identity and contradiction. There is, to be sure, no direct attempt to formulate them or to establish them by reasoning. But it is worth noting that Plato clearly makes the distinction between the negative proposition and the denial of the contradictory opposite, (the distinction that underlies Aristotle's account of opposition, ἀπόφασις, in the *De Interpretatione*), as though he were already aware of the principles involved. The statement "One is Other" may mean (1) that the One is other than the One (A is not A), or (2) that the One is the same as Other (A is not-A), each of which contradicts the supposed identity of the subject; or (3) that the One is other than Other (A is not not-A), which is also impossible, on the assumption that the One lacks implication, because it asserts non-being of the One. Hence, Different cannot be predicated of the One. But neither can Same, since in affirming the identity of the One, something more than its mere unity is implied (for identity is distinguishable from unity, as it is possible to have a meaning that is identical with multiplicity), (177) and this further implication is impossible *ex hypothesi* (139 B4,-139 E,6)

(178). Furthermore, the simple affirmation of the One under the categories of Same and Other, as quantitative and temporal identity and difference, also leads to antinomies, such that it is impossible for the One to be either equal or unequal to itself or anything else, or to stand in a proposition whatever its modality,—past, present, or future (140 B,6-141 E,7). From the complete denial of the One, we learn that Motion and Rest, Same and Different, cannot be true of it, since it is unrelated to any being or other term in discourse (163 D,7-164 A,7). And these several categories are likewise invalidated in relation to the Others, whether the One be affirmed or denied (159 E,2-160 B,1, 166 B,2-166 C,2). The upshot of the four hypotheses of τὸ ἕν is that in this view its affirmation is wholly without meaning (141 E, 7-142 A,2), all or nothing is true of it (160 B,2-160 B,4), while its denial amounts merely to the negation of the principle of definition itself in the abstract,—in other words, to the affirmation of an absolute nonenity. "If there is no One, then nothing *is*" (166 B,2-166 C,2).

From the four significant hypotheses concerning One-as-being, arguments are deduced which support the validity of each of the opposite categories. These arguments have been deemed fallacious by many critics because each one has been regarded as a reversal of the one before, with the result that they all cancel out at the end. But there is no necessity of supposing that the argument is intended to transform motion into rest, same into different, and vice versa. Rather, it is to determine *in what respect* (περὶ τοὺ, 148 D,5 et passim) Motion is predicable, in what respect Rest is predicable, etc. of One-as-being. By such understanding of matters of definition, the young dialectician is equipped to meet the subtleties of eristic, as well as to pursue and to transmit to others the objects of scientific inquiry. Now since, according to Plato, all things are ordered by mind, and exist in conformity to a significant structure of being, the world in its dynamic aspect must consist in the active relations among the Forms of mind, and all its changes must be brought about in and through that community of Ideas, that interconnection of the types of order, which is equivalent to universal mind; while the world as static, as permanent reality, is found *in* those Forms, or types of order, themselves, which are the infinite complexity of being made definite. An essence, then, is discovered to be at rest, in one respect, and in motion, in another. For One-as-being remains in itself, established in definition, since its being is this unity, and this unity has such-and-such being (145 E,8-146 A,3) (179). But since its meaning in extension is passing continuously into other meanings, or what it is not, One-as-being is always in motion (146 A,3-146 A,8). What about the denial of the One? It has been shown that it must possess some significance, must have been known to have being of some sort, even though being is denied of it. So, as having changed from being to not being, Motion is truly predicable of the One that is not; and as a (once) definite essence, Rest is also predicable of it (162 B,9-163 B,6).

Doubtless, it had been objected from the Megaric standpoint that for an essence to be thus involved in differences of quantity and figure, and to be subject to temporal process, opposite affections of a single substance are implied.

Therefore, the attributes of great and small, contiguous and separate, older and younger, are not really predicable of an essence, but are the illusions of the apparent Many. In order to meet this attack, much of the analysis is devoted to the consideration of the ways in which each of these attributes is truly predicable by virtue of the complexity of Forms in being. Intensionally, One-as-being is identical with itself, since it is neither a part of nor other than its own essence; in this sense, it is true that One is One. But in extension and in so far as it is divisible into the complexity of being, it is true that One is in something else, or One is not One. Again, with respect to the intensional meanings of One and not-One, it can be affirmed that One is not not-One. Finally the One and the Others are distinguished, not on the basis of what each *is not,* but on the basis of what each *is.* In other words, a significant distinction between two terms implies an identical *fundamentum divisionis,* so that it is true that One and not-One must agree in order to differ. In this respect, therefore, the One is the same as the Others (146 A,9-147 B,8).

It will not be necessary to follow the intricacies of the argument further in this place, (180) since enough has been said to indicate the main intention and method of the analysis according to the present interpretation. The various aporiae regarding positive and negative magnitudes, contiguity, and duration are demonstrated, both in relation to the One and the Others, to be improper statements of their respective categories. And this is accomplished by maintaining the distinction between the essential meaning of a definition (the One)and its extension in the multiplicity of its particulars (Being), while recognising their mutual implication in the significant judgment. The four hypotheses, in which it is supposed that the existence of a Form is affirmed or denied as a simple and explicit entity, lead to the absurd conclusion, that the One can have neither being nor unity, nor can it "be named, spoken of, judged, known, or perceived by the senses." On the other hand, since the several categories can be logically affirmed and denied of the One-as-being, "it can be the object of knowledge, judgment, and sensation; it can be named and spoken of".

Conclusion.

The Parmenides is a discussion of the structure of mind revealed in the method of dialectic. No doubt its obscurity is due in part to our insufficient knowledge of the situation to which its arguments refer. Yet most of its perplexities for modern criticism lie in the vain attempt to centre these arguments in a doctrine of Ideas which presupposes the categories of subject and object of consciousness. By transferring the whole inquiry from this context of modern epistemology into the field of logic, which had begun to engage the efforts of Socrates and his successors, it is seen that the problem of a transcendence or immanence of Ideas is here not a question of relating items within "experience" to objects lying above or beyond it; but rather a problem of individuation,—the logical import of a judgment in its relation to the particular subject-matter defined. The aporiae of predication set forth by Plato and the similar arguments of Aristotle against the Platonists are objections to a

logical theory that both thinkers alike reject. It is rejected for the reason that Plato and his greatest disciple regard mind as an implicit universe of discourse, while each judgment stands for the concretion or individuation of its Forms through a recognisable process, whether it be dialectic or syllogism. If this interpretation is correct, much light is thrown on Plato's doctrine of mind, both in the PARMENIDES and elsewhere, by the elaborate exercise in the second part of the dialogue; and we are justified in saying that it is our earliest work in logic, as a science, anticipating in many important respects the more formal and systematic treatises of Aristotle.

In the beginning of the dialogue we are confronted with a situation which had arisen in the Cynic and Megaric schools through the development of the Eleatic contention into a problem of predication. This was being presented as a barrier to philosophy, in the Platonic sense,—the discovery and definition of the true Forms in which things participate. The discussion carried on between Zeno, Parmenides, and Socrates contains Plato's reply to the skepticism of his critics. It is not in the nature of a polemic, for there seems to be no trace of rancour, no spirit of antagonism displayed by any of the characters. Nor is it an attempted refutation of skepticism, for no positive thesis is set up for attack or defense. What we have is a dialogue of search, in which the course of the argument overshadows the conclusions; an exhibition of contrasting views rather than a direct rebuttal. However, the discussion is not in itself without point or pretext. There is a genuine issue here between clarity and confusion regarding the interpretation of a judgment. The main root of the perplexities is a failure to understand an elementary and important distinction in the meaning of terms. Clarification is sought in the structure or categories of mind involved in the actual practice of dialectic. Absurdities must necessarily result from the confusion of the intensional with the extensional meaning in a judgment. But it becomes evident *in what respect* the several categories do apply when the distinction is rightly maintained.

We have discussed the logical import of the PARMENIDES only in its bearing upon Plato's conception of mind. The comparison of his account of predication with Aristotle's lies beyond the scope of the present work. But it offers, if we are not mistaken, a rich source of information in the history of logic. The more evident similarities are to be found in their views respecting the nature of propositions, the quality of truth or falsity, and the distinction between negation and contradictory opposition. Both thinkers seem to agree that a judgment expresses the implication of Forms or meanings within the particular subject in mind; it is a symbol in speech of an affection ἐν τῇ ψυχῇ or ἐν τῇ διανοίᾳ (cf. Parmenides 132C, De Interpret. p.16,a3-8; p.24,b1). True and false refer exclusively to categories or attributes when involved in a significant judgment, not when taken simply. And Plato is acquainted with the distinction between the several types of negation which underlies Aristotle's account of opposition. A few scattered passages in Aristotle's writings indicate that he regarded the eristic confusions of the intensional unity of a Form with its multiple extension from the same standpoint as that revealed in the PARMENIDES. It is worth noting in this connection how completely

the modern logicians have abandoned the position taken by Plato and Aristotle, as well as by the later Schoolmen in the 13th and 14th centuries. The belief that the intension and extension of terms vary inversely contraverts the argument that more or less are never predicated of a Form in itself, (Parmenides 148D5-151E2), the similar view of Aristotle regarding an essence (Categ. p.3 b36), and the common scholastic position regarding the *unitas formae,* which Occam represents when he locates *intensio et remissio* not in the Form itself, but in its concrete existence, or extension. (181)

Despite these marks of continuity, however, it is likely that the further study of Plato's logical theory in the PARMENIDES will discover that its divergence from the tradition of Aristotle and the Schools is even more significant than its resemblances. It is interesting to speculate about the course which the development of logic might have followed had it been concerned with the principles of dialectic, as propounded by Plato, instead of the theory of syllogism in Aristotle. What differences would have resulted had logicians worked with the Platonic conception of One, Being and Other instead of the Aristotelian formula of major, minor and middle terms? The chief points of contrast seem to lie in two different ways of getting at the structure of discourse. When we speak of *judgment* we may mean (1) the whole process of reaching a conclusion, or (2) the finished product itself, or (3) the act of deciding, considered as mental behavior. We are concerned here with judgment in the first two senses only, since the last is the standpoint of a psychological analysis foreign to both Plato and Aristotle.

Now a logical theory that is based on the study of a structure revealed in the *process* of philosophic inquiry will clearly differ in many respects from one that is based on the study of the relations between judgments regarded as the *outcome* of previous inquiries. In the former we are concerned with the principles which the actual procedure of discourse does exhibit when it is moving toward an objective, not as yet achieved. In the latter we have principles derived from the consummated results of such procedure, viz. statements of conclusions, when they are arranged *ex post facto* with a view to demonstrating their grounds. This is the position which the theory of syllogism assumes. (182) It means that classes are already determined and disposed in a certain order, and this order is then displayed in the formal relations of the syllogism. Didactic, in contrast to dialectical, reasoning is the orderly demonstration of how preestablished classes are or are not subsumed under one another in the terms of definitions. Precisely what is to be understood by the nature of a term (ὅρος), Aristotle does not always make clear. Sometimes he seems to approach the view of Plato, regarding ὅρος as ὁρισμός or the "signification of what is" (183), (a one-as-being). But more consistently with his own theory, terms are regarded as the *extremes* of which the proposition is the intervening (and external) connection (184). From this standpoint, the structure of discourse points inevitably to a metaphysical hierarchy of classes in nature, whose fixed relations are merely traced out and made explicit by the syllogism. The totality of being suggests the shape and structure of a pyramid, with primary substances at the foundation

and grades of genera and species descending from the apex. The three-fold relationship of major, minor and middle terms forms the joints of the edifice.

Plato's theory, so far as it is formulated in the PARMENIDES and SOPHIST, seems at once less rigid and less artificial than Aristotle's. It comprises the principles of definition considered as a *process* of dialectical inquiry. The five categories or general types of communication, (Being, Same, Different, Rest, and Motion) are implied in the method itself. Each unitary Form (One), or successive object in the path of argument, involves plurality of Being and infinity of non-being (Other). (185) In relation to its own essence, it is fixed and there is Rest. In its further extension it commingles with other Forms and there is Motion. Thus, through successive differentiation, "One is always disappearing and becoming two", (its essence and its differences), until the individual subject-matter is sufficiently defined. These and the other principles of rational discourse are discovered, however, in the actual process of identifying an essence through elimination of differences. Hence there is no necessity for assuming an ultimate and universal hierarchy of being such that every class, together with its specific differences, is subsumed under another class, and this under a third in an ascending scale of comprehensiveness. In Plato's view, mind or the totality of being does not suggest the figure of a pyramid. It suggests rather a network of definitive Forms, each of which is the pattern or ideal meaning of a multiplicity of related facts. Between some, if not all, of these Forms are connecting strands. The task of the dialectician is to follow these strands wherever they lead, until the ideal meanings have been distinguished from the tangle of existences in which they are involved. However, this philosophic pursuit, when rightly conducted, will conform to certain principles in the real nature of its objects. It will not confuse being with non-being, same with different, rest with motion. It will make its division of One and Others at the proper place, leaving the Others indefinite and pursuing the further identifications of its subject in the plurality of the One. In short, Dialectic as the community of Ideas is equivalent to the presence of mind in discourse. It is the knowledge of the Good, as the principle of measure and truth and fitness, which permeates all things with its light.

APPENDIX

Parmenides 137 C to 166 C: Analysis.

I. Given "There is One", what follows with respect to itself?

A. Under the category of Being: (137C4-138B6).

1. as logical whole: (137C4-137D3)

Whether we consider it distributively or collectively, the One would be many and not one; for parts imply a whole, and the whole implies totality of parts. Therefore *per impossibile,* the One is not a whole and without parts.

2. as object of mathematics: (137D4-138A1)

Since the One is without parts, it lacks extremities or limit, and hence is indefinable and immeasurable. Thus, no spatial form can be predicated of it, whether the straight or the circular; for the straight is that form whose centre is in line with its extremities, the circular that form whose extremities are all equidistant from its centre.

3. as located in existence: (138A2-138B6)

It cannot be within something else, for this involves relations of the One to its locus, which is impossible without parts or spatial form. Nor is the One, as existing, within itself, for to *be* in anything is to be contained by it, and the One would then be two,—container and content,—instead of one.

B. Under the category of Motion: (138B7-139A3)

1. as alteration: (138B7-138C3)

To say the One is Other is equivalent to saying the One is not One. Alteration of the One is therefore impossible.

2. as locomotion: (138C4-139A3)

The One cannot revolve since it lacks centre and circumference. Nor can it change in place, for this necessitates its coming to be somewhere, either as whole or in part; but we have found that the One is neither a whole nor divisible, and cannot be allocated.

C. Under the category of Rest: (139A4-139B3)

1. To be at rest means to be in the same (place or condition). It has been shown that the One is neither in itself nor in another. Therefore, the One is never at rest.

D. Under the categories of Same and Different: (139B4-141E6)

1. As general identity and difference: (139B4-139E)

a). "the One is other" means either that the One is not One (is other than One), or that the One is not-One (is the same as Other). In neither sense does the One remain explicitly itself.

b). "the One is not not-One" (is other than Other). This is impossible, for the One must now partake of what it is not, (i.e. Other); but by hypothesis only the One, without further implication is given.

c). "the One is One" (identical with itself). Identity and unity are not homologous terms, e.g. to become identical with many is to become identical without becoming one. Therefore, the statement that the One is the same with itself requires something further than what has been assumed in the One, simple and explicit.

2. as qualitative similarity and dissimilarity: (139E7-140B5)

Resemblance is identity of affections; but since identity is distinct from unity, the One cannot resemble itself or another, without being more than the One simply. By parity of reasoning, the One is never unlike itself or another.

3. as quantitative similarity and dissimilarity: (140B6-140D8)

The One cannot be equal to itself or anything else; for equality is sameness of measures, and sameness cannot be predicated of the One. Again, the One cannot be more or less than itself or anything else, since computation necessitates numerical parts; but the One is indivisible.

4. as temporal similarity and dissimilarity: (140E1-141E7)

Neither contemporaneity nor difference of age are predicable of the One since these imply quantitative or qualitative identity and difference. Nor will the One be in time at all, since duration requires a thing to become older (at a later period) than itself (at an earlier period), and also younger (at an earlier period) than itself (at a later period). But such affections are manifestly impossible if the One is to remain simply One. And since the One is not in time, it does not partake of existence, past, present, or future.

Conclusion: (147E7-142A8)

If the One (in the above sense) cannot *be,* it cannot be *One,* and cannot be named, spoken of, judged of, known, or perceived by the senses. In short, it is an absurdity.

II. Given "One is", i.e. has being, what follows with respect to itself?

There is a valid distinction between One and Being,—between the meaningless statement "One is One" and the significant or ampliative statement "One is", or partakes of Being. (142B5-142C7)

A. Under the category of Being: (142C7-145E6)

1. as logical whole: (142C7-143A3)

The One-as-being is by nature a whole and made up of parts; for in the proposition "One-as-being is" the whole One-as-being (the logical subject) contains the two distinct parts, "one" and "being" (subject-predicate). Furthermore, each of these parts, considered by itself, implies the other, and is in turn a whole, which can in turn be divided into *one* and *being;* "so that one is always disappearing and becoming two." Therefore, the One-as-being is infinitely complex.

2. as object of mathematics: (143A4-145B5)

If we try to imagine the One abstracted from that in which it participates, (i.e. as the principle of definition itself, rather than One-as-being), we find that One, in this sense, is coextensive with Being. The proof is as follows: we have distinguished the two terms or parts of the proposition "One-as-being is", so that with strict reference to one another each *is* Other; (One differs from Being by virtue of what *is* not-Being, while Being differs from One by virtue of what *is* not-One). Thus, analysis of a significant affirmation reveals three elements: One, Being, Other. Now by the combination of these, through addition or multiplication, the system of numbers is generated. Thus, any pair of them gives Even; the addition of the third gives Odd. And by taking Even an even number of times, Odd an odd number of times, Even an odd number of times, or Odd an even number of times, every number follows of necessity. In short, the affirmation that *One-as-being is* carries with it the implication of number,—that number is and participates in Being. Now num-

ber (and hence Being) is infinitely extended and divided,—but with an important qualification. We have said that Being is predicated of an infinite multiplicity, and divided into an indefinite number of parts. But each part, in so far as it *is,* and so long as it is, must be one (i.e. definite). It is impossible, however, that the One *as a whole* should inhere in the many that are.

Therefore, One is divided and is distributed co-extensively with Being. In other words, Being and definition are correlative. And One is extended or distributed by its predicate Being into an infinite number of definite parts.

Thus, One-as-being is unlimited (in extension) and limited (in intension). But if limited, it is susceptible of spatial definition, whether in the form of round or straight, or a combination of the two.

3. as located in existence: (145B6-145E6)

One-as-being is both contained in itself and contained in something else: a). It is self-containing: the whole is equal to the sum of its parts; and since all the parts are contained in the Whole, the One (in intension) is contained in itself. b). But it must also be contained in something else: for the whole is not contained in all the parts severally, nor in some of them; therefore, the One (in extension) is contained in something else.

B. Under the categories of Rest and Motion: (145E8-146A8)

1. One-as-being is at rest, by definition; since it remains the same, namely itself. (In other words, rest is permanence of essence).

2. But One-as-being is always in motion, since it is always in something else. (In other words, motion means that an essence is extended in interconnexion with other essences.)

C. Under the categories of Same and Different: (146A9-155D5)

1. as general identity and difference: (146A9-147B)

a). One-as-being is always identical with itself (in intension): for there are, in all, three kinds of relaton,—identity, difference, whole-part; the One is not a part of tiself, nor different from itself; therefore, it must be identical with itself, i.e. *One is One.*

b). One-as-being is other than itself (in extension): since it is in something else, and when an essence remains in itself, while it is also in something else, it is other than itself, i.e. *One is not One.*

c). One-as-being is other than the others: for when two terms are different, each is said to be other than what is other, i.e. *One is not not-One.*

d). One-as-being is identical with the others: for the categories Same and Different are opposite, so that Different can never be in Same; hence the others, or not-One, in so far as they are (i.e. in the Same) cannot partake of Different. Therefore, it is not through being Different (i.e. through not-Being) that the not-One are distinguished from the One; nor is by any inherent otherness, since with reference to themselves, they partake of Sameness; nor do the not-One stand in the relation of whole-part to the One. The only remaining relation of not-One to One is that of identity. Thus, One and not-One are different only with reference to their identity, and the One is the same as what is other, i.e. *One is not-One.*

2. as qualitative similarity and dissimilarity: (147C1-148D4)

a.) In what sense different terms are alike: as we have seen, One-as-being is not the others (or not-One). Now their difference, whether complete or partial, is always specific: i.e. the others differ from the One in precisely the

same qualities as the One differs from the others. In other words, whether the One or the others be taken as subject for the comparison, their points of difference remain constant: so that in this respect the One and the others suffer an identical affection, and are alike.

b). In what sense different terms with identical attributes are unlike: if the One is like the others by virtue of each being other, the One is unlike the others by virtue of each being the same; for same and different are contradictory opposites, and what is like through being different will be unlike through being the same.

c). In the more obvious sense of similarity and dissimilarity, the One is also like and unlike the others through sameness and difference of affections, respectively.

3. as quantitative similarity and dissimilarity: (148D5-151E2)

a). In what respect the One can be contiguous to itself and the others: One-as-being is in juxtaposition with itself in so far as it is (intensionally) a self-contained whole; and in contact with other things in so far as it is (extensionally) in them. But in another sense (sc. spatially), One-as-being is neither in contact with itself nor the others: not with itself as One, for it takes two to make a contact; not with the others as not-One (or indefinite), for the latter in this sense lack the principle of number and hence are incommensurable with the One.

b). *Intensio et remissio formarum*: in their respective intension, the One and the others are quantitatively *equal*. If we predicate more or less of the One in relation to the others, or of the others in relation to the One, it is not by virtue of what they *are* (i.e. their essential meanings). Rather they would be equal to one another if, besides being what they are, they each possessed the Equal; and they would be more or less if and when they severally possessed the Great (magnitude or positive quantity) or the Small (negative quantity). Thus, it appears that quantitative difference between the One and the others implies two contrary forms,—the Great and the Small. Now it is impossible that these (putative) forms should be present to the One, either as a whole or in part. Suppose the One to be less than the others by virtue of the Small being present in the whole of it. Then the Small must either be *equal to* or *greater than* the whole One, thus losing its meaning,—smallness. If, on the other hand, we conceive of the Small as present in a part of the One, and not the whole, the aforesaid difficulties will recur in regard to that part. By similar reasoning, *mutatis mutandis,* it is impossible for the Great to be present in the One, either as a whole or in part. Therefore, since the One cannot be more nor less than the others, through participation in the Great-and-Small, it must be (intensionally) equal to the others. Likewise, it is neither more nor less than itself, but equal.

c). In extension, the One may be more or less than itself and the others: for assuming complete definition the One must be distributed in the others, or the others in the One, if they are to *be* at all. Now in so far as the One is distributed in the others, the others are more than the One; and the One less than the others. The reverse is true if the others are distributed in the One. Thus, we find more or less, as well as equality, of (logical) divisions possible in the One, both with reference to itself and the others. But equality or inequality of division implies equality or inequality of (numerical) parts. Thus,

quantitative similarity and dissimilarity occur between the One and the others.

4. as temporal identity and difference: (151E3-155D5)

If Being is predicated of the One, then the One-as-being partakes of duration, past, present, and future.

a). Duration of the One with reference to itself: Time is a process; therefore the One, moving along in time, *becomes older* than itself. But this (as we have seen) implies its *becoming younger* than itself coincidentally. Also, it is older and younger than itself, when at any present moment it has ceased becoming, and has become older and younger than itself. For "the present is always present with the One during all its being; for whenever it is, it is always now". But as self-identical, the One has traversed an equal scope of time with itself, and is therefore neither older nor younger, but of the same age with itself.

b). Duration of the One with reference to the others (1) past and present: the One came into being prior to the others, since these latter have number, and number implies the One (i.e. definition). In this sense, the One is older than the others. But the One, considered as a whole of which the others are parts, comes into being in finality and is posterior to, hence younger than the others. Yet again the One has come into being, coincident with each of its several parts (in so far as each is definite), and is therefore neither older nor younger, but of the same age as the others. (2) future: given a present equality or inequality of age between the One and the others, the One *becomes neither older nor younger than the others,* since the lapse of an equal period of time leaves their (arithmetical) ratio the same. But in another sense, the One *does become older* (*or younger*) than the others. For example, if the One be given as older than the others, then, after increasing their respective ages by equal amounts, the (geometrical) ration between them is *decreased;* so that the elder becomes younger in relation to the younger, while the younger becomes older in relation to the elder. Thus, past, present, and future time is predicable of One-as-being. And the same holds true of its properties.

Conclusion: (155D6-155E3)

Since at this moment we can enunciate all of the preceding about the One, "it can be the object of knowledge, judgment and sensation; it can be named and spoken of".

Corollary: how One-as-being is generated and destroyed (155E4-157B5)

Since the One (in significant definition) *is* one and *is* many; and is not-One and is not-many; and participates in the passage of time; it must be that it is one at a time when it has being, and is not one at another time when it has not. (For it is impossible both to be and not to be at the same time). The assumption of being is named *generation;* the loss of being, *destruction.*

There is, then, in each of the senses in which One is or is not, a process of generation and destruction. The integration of the many parts in a single whole is the generation of the One; while the differentiation of a whole into its many parts is the destruction of the One. The identity of the One is its becoming similar; the difference of the One is the destruction or negation of its similarity. And the One becomes more or less or equal by a like process.

But the difficulty in conceiving this process becomes apparent when we examine the categories of rest and motion. How is the *change* from one condition to its opposite brought about? For there is no one moment of time when

a thing is passing from rest to motion, or the reverse, and is neither at rest nor in motion. There must be "that strange condition", the *immediate,* through which occurs the change into one or the other of the opposites.

For the same reason, the changes from one to many, like to unlike, positive and equal to negative quantity, and their reverse, are all accomplished through *the immediate now;* "the transition must be out of time altogether".

These, then, are the affections predicable of the One, in so far as it *is.*

III. Given "One-as-being is", what follows with respect to the others? 157B6-159B1).

Inasmuch as the others are other than the One (i.e. are implied in the *being* of the One-as-being), they are not the One. Yet they must in some sense participate in the One. (157B6-157C2).

A. Under the category of Being: (157C2-158D8).

1. as parts in a logical whole:

The others (considered collectively) must be divisible into parts, else they would be simply the self-identical or explicit One. But the others (considered distributively) are not parts of themselves,—for this leads to absurd consequences. (Each part will either be a part of itself, which is impossible; or a part of each and all of the others, but of no specific one of the others, which is a contradiction). Therefore, the others severally must participate in "some single Form, some 'One', which we call a whole,—as a complete (or final) One generated out of all" (the several parts). In this sense, then, wholeness, and hence the One, is related to the othrs; while each part of the others remains, nevertheless, other than the One.

2. as numerically defined:

If the others are not One, they must be either more than one or nothing. But since they are related to One-as-being, both collectively and distributively, the former is true. In one view, the others are indefinitely multiplied, i.e. considered as not-One, or totally indefinite. But in another view, the others are numerically limited, i.e. in so far as they are defined in relation to one another.

B. Under the categories of Similarity and Dissimilarity (158E1-159A6)

In so far as the others are all definite, they are *alike;* and they are also alike in so far as they are totally indefinite. But in so far as they are both definite and indefinite, they are to that extent unlike.

By similar reasoning, it would not be difficult to show how the other opposite categories,—the other modes of Identity and Difference, as well as Motion and Rest,—are also relevant to the others in the proposition "One-as-being is". 159A6-159B1).

IV. Given "There is One", what follows with respect to the others? (159B2-160B4).

A. Under the category of Being: (159B2-159E2)

1. as parts of a logical whole:

the One (as completely explicit) must be entirely *separate* from the others. "For there can be nothing that is both other than the One and other than the others (the not-One), and whatever is predicated of the One and of the others is predicated of all." So that there is no other being in which both the One and the others are implicated. Hence, it is impossible to predicate the One of the others, or the others of the One, either as a *whole* or *in part;* since

the One, *qua* One, has no parts, and (in this hypothesis) is separate from the others. Hence the others, participating in no wise in the One, can have no *unity,* (i.e. are absolutely indefinite); nor can they have *multiplicity,* since they are not parts of a whole.

2. as objects of mathematics:

the others do not participate in *number,* since the One is entirely absent from them.

But if not in number, then the others do not participate in any of the other categories which imply a numerical distinction,—like or unlike, identity or difference, motion or rest; nor do they undergo generation or destruction, or possess quantitative similarity or dissimilarty. (159E2-160B1).

Conclusion: (160B2-160B4).

Therefore, if there is One, all and nothing is true of it, both in relation to itself and to the others.

We consider next the consequences of *negation,* with respect to the One and the others.

V. Given "One-as-being is not", what follows with respect to the One? (160B6-163B6).

It should be noted that the propositions "One is not" and "Not-one is not" are entirely opposite. For *One* signifies something known, and the statement "One is not" means that One *is* something other than the others, or is known to be *different* from the others; not that the One is nothing. (160B6-160D2),

A. Under the category of Being: (160D3-161A5).

1. as logical entity:

there is a knowledge (or essence) of the One, else the proposition "One is not" will signify nothing.

2. as object of mathematics:

difference (and by implication the system of number) appertains to the One, in so far as it *is not* (i.e. is other than) the others.

3. as located in existence:

It is possible, or rather necessary, that the One have relation to "this", "that", "these"; in other words, it must be present in *something* in order to be spoken of. The assertion that the One-that-is-not has this, that, and the other property is not equivalent to saying that the One-that-is-not has existence. What is meant is that the One, as subject of the negative proposition, *is* this definite One, and not something else.

B. Under the categories of Same and Different: (161A6-161E2).

1. as qualitative similarity and dissimilarity:

in relation to the others and in just those respects in which it differs from the others, the One will have *unlikeness.* But in relation to its own essence, the One must remain self-identical, and have *likeness.* Otherwise, the proposition "One is not" is about something else, and not about the One.

2. as quantitative similarity and dissimilarity:

the One differs from the others with respect to quantity: for, since the One is not, it cannot exist and be like the others, in the sense of equality. Hence, the One is unequal to the others, i.e. *inequality* can be predicated of the One in relation to the others. But inequality implies the Great-and-Small; so that in this sense the One partakes of the Great and the Small. The One also participates in *equality.* For whatever partakes of the Great-and-Small must participate in the intermediate, which is the Equal.

C. Further remarks on the being of the One-that-is-not.

In some sense it does participate in being. For a true statement is a statement of things *as they are*. The Being of the One-that-is-not can therefore be exhibited as follows: (for convenience, let "x is not y" express "the One-that-is-not", and "not-y" represent "the not-One" or "others" in the text). The statement "x is not y" means "x *is* not-y", since if any x is not "not-y", it follows that some x *is* y. Therefore, the affirmation of "not-y" is the "bond" of the negation of "y". And similarly, the negation of "not-y" is the bond of the affirmation of "y", (i.e. the statement "x is y" means "x is not not-y"). The most complete form of an affirmative proposition is "x is y", where "x is not not-y.". And the most complete form of a negative proposition is "not-y is not not-x", where not-y is x" (or "x is not-y"). Thus, in order not to be, the One must participate in being as well as not-being.

D. Under the categories of Motion and Rest: (162B9-163B6).

To be and not to be in a certain condition (viz. to have and not to have being) is impossible without change of some sort.

1. In what sense motion and rest are predicable of the One-that-is-not: change implies motion, and the One in changing from being to not-being must move to that extent. But if it does not exist, it cannot move either through locomotion or through revolution. And if it is to remain One, it cannot suffer a change in essence. In short, the One-that-is-not is found to be both at rest and in motion.

2. In what sense the One-that-is-not does or does not undergo *generation* and *destruction*: its change or motion necessitates the One's being in others (in extension) as well as in itself (in intension); therefore the One assumes and does not assume otherness. But in the sense that it does assume otherness (extensionally), it is generated and destroyed; and in the sense that it does not assume otherness, it neither becomes nor is destroyed.

VI. Given "There is no One", what follows with respect to the One, (163B7-164B4).

In this hypothesis, the negative is taken to mean complete absence of being from the One. We are not denying to it being of one sort (mere existence) while attributing to it being of another sort (significance). We mean that the One simply lacks being. (163B7-163D7).

It follows that the One undergoes neither *generation* nor *destruction,* for this implies assumption and loss of being. (163D7).

Hence, it has no *otherness,* since otherness involves generation and destruction. (163E1).

Since it does not become other, the One has no *motion*. Neither does it *rest,* for this means being in some permanent condition. But none of the essences appertains to it, else it must participate in being. (163E2-164A1).

Neither quantitative nor qualitative *similarity* or *dissimilarity* applies to it, in relation to itself or the others. For since *nothing* holds true of it, the others cannot be compared with it; and in relation to the One, they too will be neither like nor unlike, same nor different. (164A1-164A7).

Conclusion: (164A7-164B4).

If there is simply no One, One is not "this", "that", or "other", is neither in place nor in time. Nor "can there be knowledge, judgment, or sensation of it; it cannot be spoken of or named".

VII. Given "One-as-being is not", what follows with respect to the others? (164B6-165E1).

Since the proposition is significant, the others must *be* something. But they are only known to be other, or not-One. (164B6).

A. Under the category of Being: (164B8-164D8).

The essence of the others is totally indefinite. To be "other" implies difference from something. But this something is not the One; for to be different from what is not is to be different from nothing. Hence, they must be different from one another. Now by hypothesis the others are deprived of the One, and are therefore indefinite or unlimited. So that *in toto* they are infinitely divisible. As in a dream, each apparent term is always eluding you; what you took to be one is seen at closer view to be many, what you supposed to be the least becomes by comparison the greatest.

B. Under the categories of same and Different: (164D8-165D4).

The sameness and differences of the others are apparent, not real:

1. as quantitative similarity and dissimilarity: (164D8-165C5.)

It will appear that the others, deprived of the One, are many and that number is predicable of them. Thus, both odd and even will seem to subsist among them; as well as positive, negative, and equal quantity. But without definition there can be no *true* measure and numerical relation of parts. Each "great" will only appear so in comparison to its many "small", which are in turn greater than their parts, *ad infinitum.*

the others will appear to be (spatially) determined, but lacking the One each part is in truth of infinite extension and divisibility. For what someone might take to mean a beginning, or a middle, or an end, turns out upon closer inspection to have a further apparent limit, and so on *ad infinitum.*

2. as qualitative similarity and dissimilarity: (165C6-165D4).

the others, *in toto,* will appear to be the same and also different in kind. As the parts of a picture which seem at a distance to be homogeneous, in a nearer view appear heterogeneous.

Conclusion: (165D4-165E1).

It could easily be demonstrated with respect to conjunction and separation, motion and rest, generation and destruction, that the others deprived of the One are in both states, and in neither, (i.e. that their essence is totally indefinite).

VIII. Given "There is no One", what follows with respect to the others? (165E2-166C2).

A. The being of the others is both in truth and in appearance totally indefinite: (165E2-166B2).

1. the others are neither the One nor are they the many (cf. the preceding hypothesis).

2. it is impossible even to have an opinion as to their apparent being. For, by hypothesis, the negation of the One is complete, and there is no connexion whatsoever, whether real or apparent, in complete absence of being.

B. "If there is no One, nothing is." (166B2-166C2).

For neither same nor different, conjunction nor separation, nor any of the other relations are predicable of the others, in the proposition which denies the being of the One simply. (In short, all Being, or meaning, whether real or apparent, presupposes definition. Where there is no definition, nothing is).

Summary: (166C2-166C5).

Let us conclude then by stating what seems to be true,—that whether "One is" or "One is not", the One itself as well as the others, (or not-One), are, and are not, all that we have predicated of them, in every possible mode, both with respect to themselves and to one another, and that they appear to be and appear not to be in similar predicaments. That is all incontestable.

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NOTES

1. F. J. E. Woodbridge, The Purpose of History, p. 17, (Columbia U. Press, 1916).

2. An Examination of Sir W. Hamilton's Philosophy, Chapt. XX.

3. vide Windelband, History of Philosophy, translation, (Tufts), p. 251.

4. An exception is the monograph by W. Durynek, Die 'reel-metaphysische' Bedeutung der platonischen Ideen, Breslau, 1914, in which the author attempts to combine Herbart's realism with the realistic theology of the Schools, and applies the result to the interpretation of the PARMENIDES, mainly on the warrant of a statement in 147 A, 7 of the dialogue.

5. "Qui specimen profundissimae Platonis philosophiae cupit, is legat non interpretes, etiam veteres, magnam partem in turgidum ampullosumque sermonem ineptientes, sed ipsum PARMENIDES at TIMAEUM, quorum ille de Uno et Ente, id est Deo, (nam nulla creatura est Ens, sed entia) admiranda ratiocinatur; hic naturas corporum solo motu et figura explicat, quod hodie tantopere novis nostris philosophis merito sane probatur." Opera, (ed Dutens) Tom. IV, p. 77.

6. Paul Natorp, Platos Ideenlehre, eine Einfuehrung in den Idealismus, Leipzig, 1903. Introduction, p. i.

7. Plato and the Older Academy (translation), p. 236.

8. The place of the PARMENIDES in the order of the dialogues has now been pretty definitely established on grounds of history, literary allusions, cross-references, similarity of content, and philological statistics. The following summary (from Constantin Ritter, Platon ,Sein Leben Seine Schriften, Seine Lehre, Vol I, pp. 230-231, 254-255, shows the growing consensus of opinion during the last century:

Tenneman (1792-95): (15) Philebus, (16) Parmenides, (17) Symposium.
Schleiermacher (1804-1823): (6) Parmenides. . . (10) Theaetetus.
Ribbing (1885: (9) Theaetetus. (13) Sophist. (14) Statesman. (15) Parmenides.
Stallbaum (1827-1860): (11) Theaetetus. (12) Sophist. (13) Statesman. (14) Parmenides.
Hermann (1839) (same as Stallbaum's from 11-14).
Munk (1856): (1) Parmenides. . . (18) Theaetetus. (19) Sophist.
Susemihl (1855): (11) Theaetetus. . . (15) Parmenides.
Zeller (1883): (11) Theaetetus. . . (13) Sophist. . . (15) Parmenides.
Teichmuller: (1881-84): (21) Philebus. (22) Parmenides. (23) Sophist.
Peipers (1883), *Immisch* (1899), *Lutoslowski* (1897), *Gomperz*, (1902), *Natorp* (1903), Rader (1903), Ritter (1909): (19) or (20) Theaetetus. (20) Parmenides. (21) Sophist. (22) Statesman. (23) Philebus.

9. Dialogues of Plato (3rd ed.) Volume V, p. 5.

10. Sophist, 254.

11. Theaetetus, 183 E, Sophist, 237 A.

12. op. cit. p. 137 sq.

13. Platonischen Studien, pp. 159sq., 180-182 (Tuebingen, 1839).

14. History of Philosophy (translation) I, pp. 120-1.
15. op. cit. p. 17.
16. O. Apelt, Untersuchungen ueber den Parmenides des Plato, (Weimar, 1879).
17. Journal of Philology, Vols. X-XIV.
18. ibid. Vol. XIV, p. 173.
19. This distinction is Archer-Hind's.
20. Other versions of the theory of development may be noted here. Waddell (The Parmenides of Plato, Glasgow, 1894) finds indications of a development in Plato's doctrine from its early form, in which the Ideas have only an ethical reference, to its later form which extended their meaning to include the whole of nature as summed up in the Idea of the Good, which is discussed in the second part as τὸ ἕν. Under the Eleatic influence, Plato has come to realise the inadequacy of his youthful views, (here embodied in Socrates as "a very young man"), and attacks them appropriately through the person of the great "father Parmenides" himself. A more serious mistake in his youthful philosophy was the "dualistic assumption" of a separation between the objects of sense and intellect, which "was to him the natural, traditional and unquestioned one". As he grew older, he began to feel the contradictions involved in the view, but never succeeded entirely in working them out through a consistent idealism. The PARMENIDES represents Plato's attempt to solve the metaphysical difficulties, and thus "forms as it were a vestibule to those vast and mystic halls which are trodden by the metaphysician", in short, the problems of Being and Becoming. The Italian scholar, M. Felici Tocco, to whose writings I have not had direct access, should also be mentioned here. He regards the PARMENIDES as the product of a later stage in Plato's development, when under the influence of contemporary critics, especially Aristotle, Plato introduced multiplicity into the sphere of the Idea. The later doctrine is indirectly proved by a *reductio ad absurdum* in the antinomies of the One without the Many, and the Many without the One, (vid. Bury, The Later Platonism, Jo. of Philol., XLVI, p. 165). More recently, Benn has argued for a later development, toward an "Identitaets philosophie" of soul and matter. (Mind, N. S., XI, p 41f.), while Lutoslawski construes it in the contrary sense as a development in the direction of Kantian conceptualism. (The Origin and Growth of Plato's Logic, London, 1897).
21. Mind N. S. No. 45.
22. Mind N. S. No. 20.
23. Elements of Metaphysics, p. 33 and note.
24. ibid, p. 194.
25. Zeller lays stress on the second part of the dialogue as indispensable to the proper understanding of the first part, since he considers it to be an *indirect* proof of the "richtige Ansicht" of Plato's doctrine; while the first part is then seen to involve a direct disproof of the false view. Taylor, however, discovers the clue in Part I, in the emphasis on χωρίσμός and Ideas considered as αὐτὰ καθ' αὑτά which characterises the notion that Plato is attacking; while Part II is a continuation of this same criticism within the sphere of Ideas alone,—not a disproof of Eleaticism.
26. op. cit. Introduction, p. vi.
27. "stuffenmaessige Entwicklungen der Verfahrungsweisen."

28. ibid. p. 215sq.

29. as suggested by Stewart's emendation of Natorp's account, (Plato's Doctrine of Ideas, Oxford, 1909). A similar view is adopted by P. E. Moore, "Platonism".

30. vid. infra p. 80.

33. "The monologue is thus, on the face of it, a hearsay of a hearsay". Thos. Maguire, The Parmenides of Plato, Dublin, 1882.

34. Thus, the defects of Lysias' oratory are assigned to his neglect of philosophy,—a genial warning to the contemporary Isocrates and his rival school (Phaedrus). Or, in the case of Gorgias and his followers, it is doubtful whether they ever advocated the supremacy of rhetoric quite so shamelessly as Plato pretended. But the inconsistencies of their arguments serve as an excellent foil for the later Platonic conception of justice (Gorgias 485sq.). Not without reason does Thrasymachus complain that Socrates takes his definition of natural justice in a sense most damaging to the argument (Republic I, 338). And it is clearly polemic, not the wish to present a doctrine, that inspires the travesty of the disciples of Heraclitus in the Cratylus and Theaetetus. On the other hand, in his defense of Protagoras, Socrates shows that those who have adopted the homomensura principle,—and probably, as Gomperz suggests (Greek Thinkers, II, 293) it is the contemporary Cyrenaics whom Plato has in mind,—do not properly understand its meaning; whereupon he proceeds to recast that doctrine in a form more congenial to his own (or Plato's) point of view (Theaetetus 166). Similarly, the famous dictum of Anaxagoras, that mind orders all things, is frequently introduced in support of teleology, while it is admitted by Socrates that the great Ionian did not comprehend this, the true meaning of his own saying (Phaedo 97, 98).

35. Vide Grote, Aristotle, Vol I, pp, 67sq.

36. Burnet, Early Greek Philosophy, (3rd ed.) p. 12.

37. Gomperz, Greek Thinkers, Vol 1, p. 69; Burnet, op. cit. p. 166.

38. Burnet, op. cit. p. 112, cf. p. 104.

39. Prior Anal. II; cf. Grote, op. cit., Vol. I, pp. 300sq.

40. Gomperz, op. cit. Vol. I, p. 347.

41. Burnet, op. cit. p. 180.

42. Principles of Mathematics, (Cambridge, 1908), pp. 346sq. His version of Zeno's arguments and their mathematical import is in brief as follows:
I. Dichotomy: this means that the segments of a class of real numbers are not logically prior to the class. "Thus, the solution . . . lies in the theory of denoting and the intensional definition of a class." (p. 350).
II. Achilles: this is "concerned with the one-one correlation of two infinite classes'."
III. Arrow: a very important and widely applicable platitude, that "every possible value of a variable is a constant." (p. 351).
IV. Measure: the various kinds of continuity that occur among numbers cannot be denied without contradiction. (p. 353).

43. vide Hamilton, Lectures on Logic, Lecture V. .

44. Falckenberg, History of Modern Phiosophy, (transl. A. C. Armstrong, Jr.,) p. 272.

45. Cleon's speech in Thucydides, III, 38; cf. Gomperz ,op. cit. I, p. 517.
46. *Republic* VI, 492.
47. Gomperz, op. cit., I, p. 414.
48. C. Ritter, op. cit., I, p. 20.
49. *Timaeus* 19 E.
50. Prantl, C., Geschichte der Logik im Abendland, Leipzig, 1855, Vol. I, p. 11.
51. Ritter, op. cit., I, p. 28.
52. for example, Epictetus wishes to show the relation of logic to the duties of life; it is, he says, that *skill* which enables us "to prove and distinguish between the true and the false and the doubtful", and "he who would acquit himself *skillfully* in reasoning should both himself demonstrate whatever he asserts and be able to comprehend the demonstration of others, and not be deceived by such as use sophistry as if they were reasoning fairly." Discourses, I, 7 (transl. T. W. Higginson, Boston, 1890).
53. Prantl, op. cit., I, p. 4 et passim.
54. Topics VIII, iv. 159a, 32-37.
55. Rhetoric I, iv, 2, 1359b,12.
56. Meno 96 D.
57. Topics II, 6.
58. Protagoras 340 A, 341 A, Charmides, 163 A, Meno, 75 D. Laches, 197 A.
59. op. cit. I, p. 14.
60. vide Grote, Plato, I, p. 107sq. and History of Greece, VII, p. 51, ed. 1888; Gomperz, op. cit. I, p. 488sq.
61. vide. supra pp. 23-24.
62. cf. Parmenides' statement that "it is the same thing that can be meant and that can be", supra p. 24.
63. cf. Soph. El. V, 167a, 1, where he discusses a similar argument about the Non-Ens, showing the fallacy in the abuse of the double function of the substantive; cf. Grote, Aristotle, II, p. 83. But vid, infra p. 173sq.
64. Burnet, Greek Philosophy, Part I: Thales to Plato, p. 109 (MacMillan, 1914).
65. ibid. p. 114.
66. as Protagoras himself, at the behest of Pericles, had framed a code for Thurii.
67. vid. the apologue in the *Protagoras.*
68. Prantl, op. cit., I, p. 41.
69. Metaphysics H. 3. 1043b, 24sq.
70. Topics I, 11. 104b, 20.
71. Simplicius ad. phys, f. 20a.
12. cf. Burnet, Greek Philosophy, Part I, sect. 176: "we are told that the Megarics considered it their business to 'throw' (καταβάλλειν) sensations and appearances and to trust to reasoning alone". Also, p. 113, n. 2: "metaphors from wrestling are regular in this connection. . . The phrase καταβάλλειν τ. αἰσθήσεις became technical for attacks upon sensation as a source of knowledge."
73. Alexinos in imitation of Zeno, Sextus Emp. adv. math. IX, 108.
74. Lucian Vit. auct. 22; the traps traditionally ascribed to Eubulides

were entitled Ψευδόμενος, Ἐγκεκαλυμμένος, Διαλανθάνων, Ἠλέκτρα, Κερατίνης, Diog. L. II. 108. vid. Prantl, op. cit. I, pp. 42sq.

75. vid. supra p. 33.

76. Aristotle phys. ausc. I. 2. 185b, 26; Simpl. ad phys.f.20a. vid. Prantl, op. cit. I, p. 20.

77. Gomperz, op. cit. II, p. 172.

78. Burnet, Greek Philosophy, pp. 253-4. The evidence seems conclusive: Polyxenus, a pupil of Bryson, first presented the argument, (Alexander on Arist. Met. 990b, 17.) And Plato's detractors accused him of plagiarising the lectures of Bryson (Theopompus ap. Athen. 509c) That Bryson had been affiliated in some way, possibly as a member, with the Academy, is attested by Ephippos, fr. 14 Kock.

79. vid. supra, p. 28.

80. Metaphysics Z. 6. 1031b, 31.

81. e.g. Porphyry's formulation of the problem ". . . de generibus et speciebus—sive subsistent sive in solis nudis intellectibus posita sint," etc.; Descartes' question whether wholesale doubting left "aught in my belief that was wholly indubitable"; Locke's inquiry "into the original, certainty, and extent of human knowledge", or Hume's query, "What causes induce us to believe in the existence of body?"

82. "Philosophy" in the volume on Greek Literature, Columbia University, 1912.

83. Santayana, Life of Reason, Vol. I, p. 18.

84. The conception of knowledge as something internal and subjective is strange, and, one might even say, repugnant to the Greek view of mind. "Do you want me to put the argument, literally, inside your soul?" asks Thrasymachus (ἦ εἰς τὴν ψυχην φερῶν ἐνθῶ τὸν λόγον;) The proposal is perfectly reasonable from a modern standpoint. But "God forbid!" replies Socrates, with fervor (Republic 345). Aristotle is equally emphatic about a similar suggestion. In criticising the Empedoclean doctrine that like is known by like, he dsmisses a favorite problem of modern epistemology as too absurd for discussion: "Who could ask whether a stone or a man is in the soul?" (τίς γὰρ ἂν ἀπορὴσειεν εἰ ἔνεστιν ἐν τῇ ψυχῇ λίθος ἢ ἄνθρωπος;) Furthermore thought does not think itself directly, but "thought thinks itself because it shares the nature of the object of thought; for it becomes an object of thought in coming into contact with and *thinking its objects,* so that thought and object of thought are the same". Met. XI, 1072, b. 20—Ross; cf. De Anim II.4). καὶ αὐτὸς δὲ νοητός ἐστιν ὥσπερ τὰ νοητά.

58. cf. Apology, 36 C where Socrates says he has advised everyone "not to cultivate his own affairs until he has cultivated himself in order to be best and wisest"; and 38 A: ὁ δὲ ἀνεξέταστος βίος οὐ βιωτὸς ἀνθρώπῳ.

86. So far as I am able to determine, this remark applies to all other passages where "learning", "knowledge", "wisdom", etc. are described in any was as ἐν τῇ ψυχῇ. The metaphors in Theaetetus 194C and 197D will occur to the reader: here the mind is likened to "wax in the soul" (ὁ κηρός

ἐν τῇ ψυχῇ) and to a dovecote (*νῦν αὖ ἐν ἑκάστῃ ψυχῇ ποιήσωμεν περιστερεῶνά τινα παντοδαπῶν ὀρνίθων*. But as the context clearly shows, Plato is discussing degrees of knowledge, rather than any faculty of knowledge as such. To read them in a kindred sense to that of the Lockean psychology is to work the metaphors to death.

87. cf. Pater, Plato and Platonism, p. 149; also Zeller, Plato, etc., p. 267, "we cannot doubt that Plato meant to set forth in Ideas not merely the archetypes and essence of all true Existence, but energetic powers; that he regarded them as living and active, intelligent and reasonable."

88. cf. Zeller, Plato and the Older Academy, pp. 435ff. and Cavenagh, F. A., "The Ethical End of Plato's Theory of Ideas," (Oxford, 1909), who maintains that Plato developed the earlier theory of Ideas in order to provide a basis for ethics; the Socratic proposition that virtue is knowledge seeming to promise no secure moral standard until the latter was placed on a sound metaphysical foundation.

89. cf. 80 B, where it is said that the soul is *ὁμοιότατον* with the divine, and is immortal, *νοητός* etc. "Immortality" for the Greek was never conceived in any but a naturalistic sense, since soul had not the modern connotation of personality; cf. the fragment of the memorial inscription to the dead at Potidaea, "then by the earth his body, his soul was received by the ether," Gomperz, op. cit., I, p. 84.

90. article, On some difficulties in the Platonic psychology, Jo. of Philology X, pp. 120sq.

91. on the question of "matter", vid, infra, p. 49.

92. cf. Timaeus 36E, Cratylus 400A, Phaedrus 245C, Laws 895B-896A, Phaedo 80B, Sophist 249A, Philebus 28C, Phaedo 66, (references by Archer-Hind).

93. i.e. the argument substantiates equally *τήν τε ψυχὴν ἡμῶν πρὶν γε νέσθαι ἡμᾶς καὶ τὴν οὐσίαν ἣν σὺ νῦν λέγεις*.

94. cf. Meno 86B. *Οὐκοῦν εἰ ἀεὶ ἡ ἀλήθεια ἡμῖν τῶν ὄντων ἐστὶν ἐν τῇ ψυχῇ, ἀθάνατος ἂν ἡ ψυχὴ εἴη*.

95. vid. infra p. 70ff.

96. e.g. R. L. Nettleship, Lectures on the Republic of Plato, p. 238f., where he says that Plato "represents to us by a very obvious symbol an ascending scale of mental states and a corresponding scale of objects of thought," but that the latter does not stand for "different classes of real objects", but "different aspects of the same objects",—"a scale of luminousness". If, however, we make the whole argument turn upon differences in mental states, as to clearness, profundity, etc., it is difficult to see how the figure throws any light on the distinction between knowledge and opinion of an identical subject-matter. The mental states themselves would afford no differentia unless it were assumed that different "real" objects corresponded severally to *εἰκασία*, *πίστις*, *διάνοια* and *νόησις* (which is rightly denied). Considered as a difference in intellectual *method*, i.e. as different modes of actually dealing with the same subject-matter,—(starting on the one hand from defi-

nitions of lines, odd and even, etc., and employing visible diagrams to reach a conclusion, or, on the other hand, starting with an examination of these hypothetical definitions themselves in relation to a coherent system of definitions), —we have a basis for comparing knowledge and opinion in terms of what discoveries result from their respective methods.

97. To render this in English immediately involves us in difficulties not present in the original Greek. The English construction demands a specification as "one *thing*" or "another *thing*", which suggests a further distinction scarcely contemplated in the original phrases.

98. Jo. of Philology, X, pp. 132sq.

99. "The assumptions of the separate sciences only cease to be *assumptions* when, and so far as, they are seen to be integral parts of the whole system of knowledge and reality." Stewart, Plato's Doctrine of Ideas, p. 55.

100. Greek Theories of Elementary Cognition, (Oxford, 1906), p. 3.

101. Theaetetus 153-7; cf. Beare, pp. 54-5.

102. Timaeus 65 D-66 C; cf. Beare, p. 173.

103. cf. Theaetetus 184 C.

104. Timaeus 64A-C, following Beare's version. On τὸ φρόνιμον which he translates "centre of consciousness", he notes: "I cannot render it with Mr. Archer-Hind 'the sentient part'; it includes more than this." Any term one might choose,—whether sentience, consciousness, seat of judgment, attention,—would be misleading on account of later associations. In the light of its context, τὸ φρόνιμον seems to stand for no specific region in the soul; but rather for its total "response" to the meaning of the sensation. It is adverbial rather than substantive, as saying "coming to one's attention", "brought to mind".

105. Zeller, Plato, etc., p. 305; cf. Timaeus 50 A, 53 A.

106. cf. Timaeus 49sq.

107. cf. Republic 490 B, and Symposium 210 D.

108. the verbs νοέω, ἐννοέω, ἐπινοέω, δια-, κατανοέομαι, the nouns, νοῦς, νόησις, διάνοια, ἔννοια, νόημα, the adjectives, νοητός etc.

109. cf. Euthydemus 301 B, "How should I not be perplexed, both I myself and everyone else, about what is not?"

110. Stallbaum has remarked that the philosophically inclined visitors from Clazomenae, who appear at the opening of the PARMENIDES, might well be followers of Anaxagoras and interested in Socrates' encounter with the Eleatics. Possibly this is a literary device to convey the suggestion that the conflicting claims of pluralists and neo-Eleatics are to be comprehended only through the philosophy of the Ideas. It is in Athens that Clazomenae is instructed of Elea.

111. cf. Philebus 15.

112. I take this to be an allusion, by prolepsis, to the Megarics who had appropriated Zeno's dialectic, lifting it out of its proper context, and were using it in public debate.

113. ἔπι τοὺς λόγους, 130A, 135D.

114. Bosanquet, Logic, Vol. I, pp. 290-291 (2nd ed)..

115. cf. the saying reported by Xenophon: "a dung-basket that fulfils its purpose is more beautiful than an unserviceable shield of gold".

116. I owe this suggestion to Professor Dewey.

117. cf. supra . 41.

118. Both Dr. Jackson and Professor Taylor have emphasized the importance of the "separation" mentioned here, although their conclusions are contrary; vide supra pp. 15, 17.

119. cf. Statesman 263B.

120. vide Introduction and Chapter 3.

121. "durch Zerstoerung der falschen Ansichten ueber die Ideen die richtige indirekt zu begrunden", Platon. Studien, p. 179.

122. cf. the fragments from comic poets collected in Diogenes Laertes, III, 26-28. The allusions of Theopompus, Anaxandrides, Alexis, Amphis, and others to these profundities suggest that they were matter of common report among intellectuals.

123. Geschichte der Philosophie, 2 Bd. S. 243, (quoted by Zeller, Platon. Studien, p. 165).

124. It is concerned, as is every other dialogue, with one of the various operations of mind,—which specific operation and which specific Ideas depending, of course, upon the purpose of the inquiry. If ethical, then the Forms of virtue operating in the good life as distinguished from the bad or mediocre; if educational, then the scientific merits of rival methods,—rhetoric, rhapsody, mythology, dialectic; if logical, as here, then whatever Forms are operative in all discourse,—Unity, Identity, Difference, etc. I fail to see that this difference in treatment implies a different conception of mind.

125. Metaphysics A.6.987b, 14 and Z.2. 1028b,20.

126. The treatment of this relation in Hypothesis 2, (149 E-150 E), thows some light on the meaning of the argument here; vid. infra, p. 83.

127. The purpose of this antinomy may be to reduce to absurdity the neo-Pythagorean doctrine of indivisibles in mathematics. (vid. Taylor's analysis, On the First Part of Plato's Parmenides, Mind N. S. No. 45; and supra note 42). Plato's answer is, as we shall see, that the Great and Small are indefinite (a continuum) until limited by the One (vid. infra, p. 84).

128. see Chapter 2.

129. Professor Taylor interprets it as a failure to "recognise the distinction between *perceptual* and *conceptual* extension". But this characterisation seems to introduce a kind of dualism with which neither Plato nor his Megaric critics could have been acquainted. The necessity for distinguishing extension in space from extension in intellect can only present itself when a spatial world has already been conceived so as to exclude the mental. (see Introduction). To say that Plato distinguishes facts from meaning, or subject-matter given for definition from subject-matter defined, is one thing; to say that he made a distinction between spatial and mental facts is quite another. The first distinction, or duality, marks an incomplete and a complete stage in a continuous logical procedure; the second refers to a breach between matter and mind, which Plato would scarcely undertake to repair, since he seems to have been unaware of its possibility.

130. cf. Taylor, op. cit.

131. Metaphysics A and Z.

132. Metaphysics A.9.990b,17; Z.13.1039a,2.

133. Milhaud, Les geometriciens Grecs.

134. cf. Metaphysics Z.10.1035a,33-b,2; for objections to the belief that Aristotle misunderstood Plato, see J. M. Watson, Aristotle's Criticism of Plato, pp. 12, 46-48, (Oxford, 1909).

135. Gomperz, op. cit., Vol III.

136. Watson, (op. cit. p.55sq.), shows that Aristotle knows no later theory of Ideas, hence cannot be said to have attacked an earlier one. In Metaphysics A.9.990b,13, the Platonists are represented as holding the "later" doctrine of the One and the Intermediate Dyad, while in A.6, Plato to whom this later philosophy of first principles is attributed, is expressly credited with a pre-Parmenidean view of the Ideas. Again, although the criticisms in A.9 and Ethics i.6 do not name Plato, he must be included (?) in the refutation. The doctrine of three classes of substance in Metaphysics Z.2.1028b,20 is assigned to Plato by name. Finally, in Metaphysics B and Z, it is on account of their doctrine of "eternalized sensibles" and a false hypostasis of form that the Platonists are criticised.

137. This was the view adopted by the Master of Balliol, who saw, in the antinomies of the PARMENIDES, evidence of Plato's metaphysical subtlety, thus to be able to conceive the strongest objections to his own doctrine. Similarly, Professor Shorey thinks that the difficulties are implications of Plato's own doctrine of Ideas (see Introduction).

138. vide Zeller, Platon. Studien.

139. vid. infra, p. 47.

140. Zeller, Plato, etc., p. 622.

141. R. B. Haldane, The Pathway to Reality, p. 52 (quoted in Watson, op. cit.)

142. The fallacy involved in this argument is indicated by Aristotle in his criticism of the use of complex definitions, e.g. Justice is temperance and courage; he notes that one and the same man might, according to this, be both just and unjust, if temperate but not courageous. In other words, the essential meaning of virtue is not to be confused with the meaning of the several virtues. Topics VI. 13.150a,15-21.

143. vid. supra, pp. 51-52.

144. cf. Categ. V.3b,36: "every substance with respect to its essence is neither more nor less".

145. cf. Metaphysics A .3.1070a,18.

146. The majority of critics take the reply of Socrates, Ἀλλ' οὐδὲ τοῦτο ἔχει λόγον, to be a rejection of *both* alternatives, instead of the latter only. The further implication is that the others do not partake of the Forms. Yet the other rendering is not only permissible, but apparently more natural. The only two commentators I have found who construe the passage in a positive sense are Cudworth (Treatise of Immutable Morality, pp. 243-5, quoted by Grote) and Lutoslawski, each of whom, however, finds here a subjective emphasis.

147. vid. supra, p. 24.

148. Waitz, ad. loc. cf. Prior Anal. I.24b,17; and Metaphysics E.4.

2027b, 23, where, after having said that truth and falsehood are not in things (ἐν τοῖς πράγμασιν) but in mind or meaning (ἐν διανοίᾳ) he goes on to point out that *simple* matters or (separate) essences are not even in mind (περὶ δὲ τὰ ἁπλᾶ καὶ τὰ τί ἔστιν οὐδ' ἐν τῇ διανοίᾳ).

149. Greek Philosophy, from Thales, etc., pp. 324sq.

150. vid. supra, p. 69.

151. Presumably, Plato's emphasis on the eternal character of true propositions has reference to the Cyrenaic doctrine "our modes of being affected (πάθη) are alone knowable." In the Theaetetus, Plato cites with apparent approval, as against the corporealists, those who assign to a group of sensations "the name of a man, of stone, of beast, and of every other thing." Now as Gomperz points out, "the only contemporaries of Plato to whom this picture could apply were those who maintained that 'modes of being affected are alone knowable', that the 'external thing' supposed to underlie a group of such modes was 'possibly existent' but, in any case, 'inaccessible to us' (Sextus)". (Greek Thinkers, III, p. 231). In short, while the Cynics had doubted the validity of sensation, and consequently of all knowledge, the Cyrenaics asserted that the only true knowledge lay in our affections. Plato, as we have seen, denies the cognitive value of sensation. Nevertheless, he shows a preference for the Cyrenaic doctrine, even retaining their term πάθη. What does he mean by it? It is not solely *our* modes of being affected that constitute knowledge, but the affection of one intelligible or significant object by another in the sphere of the soul. For example, we know that Theaetetus is moving or standing still. Our knowledge, in this case, does not consist in the affection of our senses in the manner of motion and rest; for this is uncertain and transitory, as the Cynics had shown. It consists, rather, in Theaetetus as he really is, being affected by motion or rest as it really is, or is known to be. The definition is, of course, circular; since when we ask what it is to know either subject or predicate "Theaetetus" or his attribute "motion", rest). we have to repeat the process of predication by introducing some other "known" (εἴδη) and so on *ad infinitum*. But there is no need of taking the first step which commits us to this infinite regress. Things as they really are, or as they are known to be, are substance. It may be worth remarking how close Spinoza comes to Plato's account of mind at this point. For the former, "all things are eternal in their status, as truth is. The place which an event fills in history is its inalienable place; the character that an act or a feeling possess in passing is its inalienable character". Santayana, Ethics of Spinoza, (Everymans ed.) Instroduction, p. xviii.

152. Burnet, Early Greek Philosophy, pp. 10-11, and Appendix on the meaning of Φύσις. He refers to a passage in Laws X, 891-2, which throws light on the doctrine we are considering in the PARMENIDES. Plato has said that "the greatest help to rational legislation is that the laws when once written down *are always at rest;* they can be put to the test at any future time, and therefore if on first hearing they seem difficult, there is no reason for apprehension about them, because any man however dull can go over them and consider them again and again." (891 A. Jowett). He then goes on to

censure those who regard fire, water, earth, air as being "the first of all things and name these Nature". (891 C). For mind and art are prior to the hard, soft, etc. "and if soul appears to be the first principle, not fire or air, then it may be said most truly that soul, since it has come into being in the beginnings, exists preeminently φύσει." (892 C)

153. As Natorp remarks, "Es ist ganz eigentlich eine akademische Seminarstunde." op. cit., p. 223.

154. Philoponus and Eustrasius; vid. Zeller, Plato, etc., p. 566 and note 27.

155. ibid., p. 573.

156. Dr. Jackson, relying largely on a supposed distinction in the statement here that "there is a class (γένος) for each thing and its οὐσία αὐτὴ καθ' αὑτήν", held that Plato was forced by the objections to abandon a theory of participation of things in the Forms αὐτὰ καθ' αὑτά, and to confine it instead to natural groups. But it is difficult to understand how this can be reconciled with Plato's express opinion that follows immediately: "unless there is an Idea of each of the things that exist, always remaining the same" the power of reasoning is destroyed (135 A,B); or with his various statements implying that he is wrong who maintains that the Forms themselves are unknowable, although he will be hard to convince and will *seem* to have reason on his side.

157. Sophist 259 C.7, Jowett, (omitting the uncertain ὡς δυνατά which he renders "as involving no difficulty", but which might also mean the contrary. For suggested emendations, see Burnet, Platonis Opera, ad loc.)

158. Essays in Experimental Logic, p. 199.

159. Royce, The Principles of Logic, p. 69, in the Encyclopedia of the Philosophical Sciences, Vol. I.

160. Dialogues of Plato, Vol. III, p. ii (3rd ed.)

161. Lessons in Logic, p. 11.

162. op. cit., p. 71.

163. cf. Bosanquet, Logic, (2nd ed.), Vol. I, p. 9.

164. System of Logic, Chapt. 4, sect. 1.

165. Soph. El. V. 167a; cf. Met. Δ. 7.1017a,31, E.4.1027b, Z.4.1030a, 25, Interpret. 21a,25, and Grote, Aristotle, Vol. II, p. 83.

166. If the ambiguity were really in the copula, as Mill suggests, then we should be able to point it out in such a proposition as "All x is y". But, as the symbolic or mathematical logic shows, when we consider the relational aspect in abstraction, we cannot "permit this form of proposition to imply the existence of either x or y. It can therefore best be understood in the conditional sense that if there be x's and y's then all x's must be y's". Venn, Symbolic Logic, (2nd ed.), p. 173, cf. pp. 159sq.

167. Metaphysics Δ. 7. 1017a,23.

168. ibid. Z.4.1030a,17.

169. Categ.46a,31sq. where it is said that the method of διαίρεσις "is a sort of sickly syllogism, seeing that it begs what ought to be proved", viz. the inclusion of the minor term, or definiend, in the middle term, or definitive

essence, which is undistributed. De Part. An. I.624b,5sq., the method is said to be "often difficult, and often impracticable", the chief objections against it being that (1) there is useless repetition of the higher terms, (2) it attempts to break up natural groups, (3) it employs privative terms, which admit of no subdivision, (4) there is cross-classification and incomplete division. "Plato's dichotomous method is of course a source of the Aristotelian syllogistic, and Plato himself calls it a συλλογίζεσθαι in Statesman, 280 A." (Prantl, op. cit., Vol. I, p. 83). Grote points out that "syllogising" in Plato has a much wider reference than with Aristotle; it includes comparison, abstraction, generalisation,—in Theaetetus 186 B-D, it means "analogising". (Grote, Aristotle, Vol. I, p. 206). It is thus quite conceivable that Aristotle should have been prepared for his systematic discoveries in logic by the study of the principles of definition in the Academy, which seems to be reflected in the PARMENIDES, and should still be able to say, as he does ,"respecting the process of syllogising, I found absolutely nothing prepared, but worked it out by laborious application for myself" (Soph. El XXXIV. 184b, 1). For, in a comprehensive sense, this claim to originality must, as Grote remarks, "be taken with some indulgence", since Aristotle himself makes frequent allusion to prior researches (Soph. El. X. 170b,12; XVII. 176a,6; XX. 177b,8; XXII. 178b,10).

170. Athenaeus, II, 59 D: Two acquaintances meet, and one asks the other, who has recently been in Athens, "What is Plato doing? and Speusippus and Menedemus? What are they discussing?" He replies that he has heard from a young student in the Academy that they were making an investigation into the vital power of animals, and the germinating power of vegetables. Among other things, they were trying to classify a pumpkin, when a Sicilian physician, who had been invited in, rudely interrupted the proceedings . . . However, Plato ignored the disturbance and returned to his pumpkin.

171. Parmenides 135 D; vid supra, pp. 76-77.

172. On the one hand, a Megaric would object that the several differences, "plane", "rectilinear", "three-sided", etc. cannot inhere in a single logical subject without involving its infinite multiplicaton. On the other hand, a follower of Antisthenes would contend that each particular triangle is just "what it is" and nothing else; and furthermore it is impossible to deny its contradictory opposites, "not-plane", "not-rectilinear", etc., since we must be talking about essences that are either completely different or completely identical, so that the contradiction is in either case impossible. A still more serious difficulty occurs in the argument that the true and complete meaning of the Ideal Figure, involving its own immutable essence as well as all its differences from every other Idea, must remain inaccessible to our human knowledge of changing and imperfect figures. (see Chapter 2, and pp. 75-76.)

173. cf. 146 D, "whatever things are not-One will all be other than the One, and the One will be other than those things that are not-One"; and 160 C, "if anyone states that the Great is not (sc. the not-Great), or that the Small is not (sc. the not-Small), etc., does he not mean that not-being *is other* than something?" For, "when anyone says 'one' he says something

which is known, and secondly something which is other than all Others; it makes no difference whether he predicates of one, being or not-being, for that which is said 'not-to-be' is shown to be something all the same, and is distinguished from Others."

174. cf. Timaeus 32D, where the ζῶον is described as "the perfect whole of perfect parts,"—i.e. perfect in proportion or measure. Aristotle distinguishes three meanings in "the complete": (1) "that outside which it is not possible to find even one of the parts proper to it", (2) "that which in respect of excellence and goodness cannot be excelled in its kind", (3) "the things which have attained a good end . . . for things are complete in virtue of having attained their end." (Met. IV, 16.1021b, 12sq.). He says elsewhere that "a whole may be of no magnitude to speak of. Now a whole is that which has beginning, middle and end". (Poetics. 7.1450b,23-27, Bywater). In other words, it is proportioned, just as the tragic significance of an action is proportioned, irrespective of its duration.

175. cf. Aristotle, Met. A.6.987b, 20: "Since the Forms are the causes of all other things, (Plato) thought their elements were the elements of all things. As matter, the great and small were principles; as essential reality, the One; for from the great and small, by participation in the One, come the Forms,—i.e. the Numbers."

176. The modern mathematical logic reaches a very similar result with regard to logical division. Suppose X to be the subject of definition, and it is found that X equals AB,—in other words, X is defined as A "restricted" by B. Division is then the discovery of a term such that when the restriction B is imposed, it will reduce exactly to X; or symbolically, X divided by B equals A, which is equivalent to $X+v\overline{X}\overline{B}$. (Venn. op. cit. pp. 77sq.) The indefinite (non-X) (non-B) is, I believe, what Plato refers to as Other,—with this exception, that in a significant definition of a term, this Other also becomes *definite* in so far as it is contained in the class which is being divided. (cf. 157B,6-158D,8).

177. cf. Aristotle, Soph El. xxxii: "For to some indeed *being* and the *one* seem to signify the same thing, but others solve the argument of Zeno and Parmenides by saying that *one* and *being* are predicated multifariously." (see also Physic, Ausc. IV).

178. What the argument indicates is that the principles of identity and contradiction apply only to *significant* predication: i.e. A is A, and A is not non-A, when and only when it is meant that A is (a+b+c+ . . . n).

179. cf. Phaedrus 254C.

180. For a more detailed analysis, see the Appendix.

181. Sent. I, Dist. 17, qu. 4C; "Forma non suscipit magis et minus, quia forma nihil recipit, sed magis in aliquo recipitur realiter." (Prantl, op. cit., Vol. III, p. 361, et passim).

182. cf. Prior Analyt. I.xxx.46a,22.

183. Topics I.v.101b,39.

184. Prior Antlyt. I.xv.35a,12.

185. Sophist 256E.

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